



Prevalence of abuse and mistreatment during clinical internship: a cross-sectional study among first year residents in Oman

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Complete List of Authors:	Al-Shafee, Mohammed; Sultan Qaboos University, Family Medicine and Public Health Al-Kaabi, Yousuf; Sultan Qaboos University, College of Medicine & Health Sciences, Department of Family Medicine and Public Health Al-Farsi, Yousuf; Sultan Qaboos University, College of Medicine & Health Sciences, Department of Family Medicine and Public Health White, Gillian; Ministry of Health, Directorate of Education and Training Al-Maniri, Abdullah; Sultan Qaboos University, Family Medicine and Public Health Al-Adawi, Samir; Sultan Qaboos University, Department of Behavioral Medicine
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Prevalence of abuse and mistreatment during clinical internship: a cross-sectional study among first year residents in Oman

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Mohammed Al-Shafee¹, Yousuf Al-Kaabi¹, Yousuf Al-Farsi¹, Gillian White²,
Abdullah Al-Maniri¹ and Samir Al-Adawi²

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¹ Department of Family Medicine and Public Health, College of Medicine and Health Sciences, Sultan Qaboos University, Muscat, Oman

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² Directorate of Education and Training, Ministry of Health, Oman

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29
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³ Department of Behavioral Medicine, College of Medicine and Health Sciences, Sultan Qaboos University, Muscat, Oman

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Correspondence to:

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39

Dr. Samir Al-Adawi,
Department of Behavioral Medicine,
College of Medicine and Health Sciences,
Sultan Qaboos University, P.O. Box 35,
Al-Khoudh 123, Muscat,
Sultanate of Oman

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Telefax: + 968 24545203
Telephone: + 968 24141139
E-mail: adawi@squ.edu.om;
jimbo@omantel.net.om
samir-al-adawi@fulbrightmail.org

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Mohammed Al-Shafee (shafae4@omantel.net.om)
Yousuf Al-Kaabi (dryousufalfarsi@gmail.com)
Yousuf Al-Farsi (dr.yousufalkaabi@gmail.com)
Gillian White (drgillianwhite@yahoo.co.nz)
Abdullah Al-Maniri (almaniri@gmail.com)
Samir Al-Adawi (samir-al-adawi@fulbrightmail.org)

ABSTRACT

Objective: To evaluate the experience and perceptions of being mistreated during internship among first year Oman Medical Specialty Board residents.

Design: A cross-sectional study

Setting: Training centers for Oman Medical Specialty Board

Participants: First year medical residents following completion of internship. During the study period 2009 – 2010

Method: A cross-sectional survey of all 69 first year residents

Results: Of 58 residents (response rate 84%) around 96.6% believed that mistreatment exists. Among different types of mistreatment, verbal and academic abuses were the most commonly reported (87.9%), followed by sexual harassment (24.1%), then physical abuse (22.4%). Forty-four (75.9%) residents had advised at least one of their relatives not to join medical school.

Conclusion: Mistreatment of medical interns is an ethical issue challenging the quality of clinical training. Further research is needed to understand factors influencing mistreatment and draw guidelines to limit such problems.

Key Words: Intern, internship mistreatment, verbal abuse, physical abuse, academic abuse, sexual harassment, Oman.

ARTICLE FOCUS

To understand factors influencing mistreatment and draw guidelines to limit such problems

Report the experiences of mistreatment among medical trainees in Oman, Arab/Islamic country.

KEY MESSAGES

The data suggest bullying behaviors are rampant among medical trainees in Oman.

STRENGTHS AND LIMITATIONS OF THIS STUDY

Bullying behaviors have been reported in different occupational settings include medical profession. There is dearth of study from Arab/Islamic countries.

To our knowledge, this is the first study on this endeavor from this part of the world.

This study is limited with small sample size and its methodology, cross-sectional study

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For peer review only

INTRODUCTION:

Different forms of abuse and other bullying behaviors have been reported in different occupational settings.¹⁻⁴ Studies carried out in different parts of the world suggest that medical professionals are no exception to maltreatment within institutional settings. Among various medical professionals who have reported abuse, those who are in the early phase of their careers, like interns, are the most vulnerable. According to Coverdale, Balon & Roberts the most common degrading experiences among interns include “threats, intimidation, humiliation, excessive criticism, covert innuendo, exclusion or denial of access to opportunity, undue additions to work requirements, and shifting of responsibilities without appropriate notice”(p.269)⁵

There are studies that have quantified mistreatment among medical trainees or those who are on the lower ladder of a medical career. Steven et al.⁶ reported in a national survey in the USA that about 93% of medical trainees endorsed the view that they have had at least one experience of mistreatment. Another survey undertaken in the UK⁷, reported that around 84% of medical trainees have been bullied and about 69% had witnessed bullying and harassment during their clinical placements. Other studies from societies that are similar to Western Europe and North American, have also found evidence of maltreatment including Australia^{4,8}, New Zealand⁹, Ireland¹⁰, Argentina¹¹ and Japan.^{12,13}

Maltreatment of medical trainees is not limited to Western countries.¹⁴⁻¹⁶ Ahmer et al.¹⁷ have reported pervasive and persistent tendencies for medical trainees in Pakistan to be subjected to ‘disrespectful interactions’, ‘belittlement’, ‘undermining’ and ‘humiliation’. Drawing from available literature, Coverdale, Balon & Roberts⁵ have

1
2
3 categorized common forms of maltreatment directed towards medical trainees as verbal
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5 abuse or humiliation, nonsexual harassment, sexual harassment or gender prejudice,
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7 sexual orientation or ethnicity.
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11 There are a myriad of adverse impacts of mistreatment that can emerge as a result
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13 of trainees being subjected to maltreatment. Schubert et al.¹⁸ has shown a significant
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15 relationship between verbal abuse during medical training and lower levels of confidence,
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17 regardless of sex, race, age or levels of ability and temperament. Richman et al.² studied
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19 mental health consequences among trainees who were subjected to maltreatment and
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21 their findings were worrisome. There appeared to be tendencies for maltreated trainees to
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23 have ‘psychopathological outcomes’ in the form of unrelenting affective emotions,
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25 resorting to ‘self-medication’ and even dependency on mind altering substances. This is
26
27 consonant with well known observations that there are high levels of stress and
28
29 psychological distress among medical trainees.^{19,20} Most disheartening is that such
30
31 prevailing situations may play a role in the higher rate of suicide among physicians
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33 compared to the general population.^{21,22} The picture is even bleaker with the findings that
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35 medical trainees, who were most distressed at the beginning of training, were likely to
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37 report more stress and distress in the subsequent course of their lives.²³ According to
38
39 Miedema et al.²⁴, there are inbuilt mechanisms that perpetuate abusive behavior in the
40
41 medical culture including working in what is perceived as a stressful environment. In the
42
43 Arab world, evidence abounds that much emotional distress is present among medical
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45 trainees²⁵⁻²⁷ including Oman.²⁸ Although these Arabian studies should be enlightening,
46
47 most of them are rife with conceptual limitations. Many of them have utilized assessment
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49 measures without local validity and therefore these studies fall into the ‘category of
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3 fallacy'.²⁹ These studies could also be criticized on the ground that their target population
4 was pre-clinical students. Therefore generalizations cannot be applied to interns.
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8 Internship, in parlance of the medical profession, is the period in which new medical
9
10 graduates learn medical practice in a hospital under supervision, prior to beginning his or
11
12 her specialization. In Oman, internship consists of three to four month rotations, in which
13
14 each intern (resident) is rotated through general medicine, general surgery and either
15
16 pediatrics or obstetrics and gynecology. Following internship in Oman, further medical
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18 training is under the auspices of Oman Medical Specialty Board (<http://www.omsb.org>),
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20 a governmental body that is responsible for postgraduate clinical training. An integral
21
22 part of its function is to oversee the wellbeing of trainees, through services that include a
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24 specialized office and designated person to which trainees can submit any grievance.
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30 With evidence of adverse experiences among medical trainees in other parts of
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32 the world and the fact that no data has been forthcoming from Oman, the present study
33
34 aimed to quantify mistreatment or abuse among Omani medical interns. Interrelated aims
35
36 were to explore experiences of mistreatment among medical trainees according to gender,
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38 perpetrator, and specialty, as well as gauge the reasons for not reporting maltreatment, to
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40 the concerned authority.
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43 **METHODS AND MATERIALS:**

44 **Study Population**

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48 The study was carried out among first year medical residents following
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50 completion of internship. During the study period 2009 – 2010 a total of 69 medical
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52 residents were enrolled. The residents were approached to participate in this study during
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54 a research workshop conducted in May 2010. Each participant was asked to fill in a
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3 questionnaire about their experience and perceptions of mistreatment and abuse with
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5 reference to their internship.
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8 **ASSESSMENT MEASURES**

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10 The Likert-type questionnaire was adapted from those developed by Sheehan et al.
11 Baldwin et al. and Uhari et al. [20] and focused on indexing 'verbal abuse', 'physical
12 abuse or threats', 'academic abuse' and 'sexual harassment'. In addition, various socio-
13 demographic information (e.g. age, sex, year of residency, marital status and current
14 specialty) were included. The participants were also given the option to use free text to
15 describe reasons for reporting or not reporting maltreatment.
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24 The questionnaire was delivered to each participant in a closed envelope, which
25 also contained a description of the study, so that informed consent could be obtained, and
26 statement of confidentiality. To assure anonymity, participants were explicitly informed
27 not to make any reference to their identity on the questionnaire. Return of a filled out
28 questionnaire was taken as consent to be a participant.
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36 **ANALYSIS**

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38 Data was entered on EPI-data software and transferred to SPSS version 17.0 for
39 analysis. Both descriptive and inferential statistics were used as appropriate. Free
40 narrative was assessed using thematic analysis.
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46 The study was approved by the local institutional review board (IRB), Research
47 and Ethics Committee of College of Medicine and Health Sciences, Sultan Qaboos
48 University (MREC#382)
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RESULTS

The results are presented first as simple demographics of the sample and then in relation to the aims of the study. The response rate was 84.2% (58/69 residents) of which 30 (51.7%) were female and 28 (48.3%) were male. Their ages ranged from 25 to 35 years (mean of 27.83 yrs and standard deviation of 1.63 yrs).

Experience of mistreatment according to gender

Table 1 shows perceived maltreatment according to gender. Out of total 12 items eliciting maltreatment, males dominated in 6 of them however, no statistical differences were found between genders on any one item. When each form of maltreatment was collapsed into 'verbal abuse', 'physical abuse or threats', 'academic abuse', and 'sexual harassment', the only category of statistical significance at the 95% confidence level was 'academic abuse' where the males reported higher levels of mistreatment ($p \leq 0.004$).

Experience of Mistreatment according to perpetrator

As shown in Table 2, Consultants outshone others in perpetuating verbal abuse and physical abuse. They were also more likely to be guilty of academic abuse toward the male residents ($p = 0.03$). Consultants and Specialists together were implicated in academic abuse and sexual harassment more than other groups that the residents encountered.

Experience of Mistreatment according to specialty

Three specialties (medicine, surgery, pediatrics) were scrutinized for variations in dispensing maltreatment to the residents. As shown in Table 3, the data can be extrapolated in three ways. Firstly, notoriety of all indices of maltreatment were significantly higher during medical rotation than pediatrics or surgery ($p = 0.005$).

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3 Secondly, overall pediatrics was second highest, although verbal abuse, academic abuse
4 and sexual harassment was second to medicine during surgical rotation. Thirdly, verbal
5 abuse was the highest type of maltreatment reported (36.8%) closely followed by
6 academic abuse (35%).
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12 **Reasons for not reporting Maltreatment**

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15 The major reason for not reporting maltreatment elicited from the free text
16 responses was to avoid further trouble and thus maltreatment was concealed. “Reporting
17 could adversely affect my evaluation and professional career...” Such behavior, out of
18 fear, could be seen as secondary abuse. Some respondents did not know how to deal with
19 the problem or preferred to deal with the maltreatment themselves. “I did not know to
20 whom I should report or how to complain.” “I dealt with the problem directly myself.”
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22 Seven respondents did not report the maltreatment because the perpetrator “apologized to
23 me.” It was also not uncommon to not recognize “the experience as abuse at the time it
24 happened.”
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36 **DISCUSSION**

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39 To our knowledge the present research is the first to describe four interrelated
40 patterns in relation to maltreatment from the experience of first year medical residents:
41 gender of the victim, types of maltreatment, specialty rotation where maltreatment
42 occurred, and reasons for not reporting maltreatment, in the Arab countries. Although the
43 intended population was small, the rate of response to the survey was high and the gender
44 distribution of participants fairly balanced. Most were undertaking a medical specialty
45 and were in their late twenties. On the whole, the present findings substantiate the view
46 that maltreatment is prevalent during medical training.^{6, 7,18,30,31} and it appears that
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3 maltreatment and abuse is the rule rather than the exception. The first principle in
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5 medicine is 'primum non nocere' (first do no harm) – Hippocrates may have also been
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7 referring to the well-being of the young medical trainees.
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11 One of the aims of this study was to examine whether there is a gender difference
12
13 in perceived maltreatment. The result suggests there was no significant difference
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15 although young female doctors were more likely to experience threats and sexual
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17 harassment. In past decades, Oman has made rapid progress in eroding a traditional
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19 gender gap. Both universal free education for women and the resultant female
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21 empowerment have been catalysts for such change.³² As a result, the country has
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23 witnessed that women's enrollment to higher education appears to be outstripping those
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25 of their male counterparts³³, a feat that is globally supported with emerging evidence that
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27 females generally perform better across the border in indices of education. With
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29 education being the engine of social emancipation, women have made a desirable
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31 entrance into Oman's workforce. Maltreatment and sexual abuse (that is abuse of a
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33 personal nature) echoes the global situation where such patterns are common among
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35 working women³⁴ and nonetheless, female doctors.^{35,36} In academic performance,
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37 however women are less likely to be maltreated than males. This interesting finding could
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39 be attributed to malingering among males or more studious females. These assumptions
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41 could be further tested. Regardless of assumptions there is a strong rationale for
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43 instituting teaching about healthy workplace ethics.³⁷
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51 The second interrelated aim of the present quest was to shed light on the
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53 perpetrators of maltreatment. The present descriptive data unequivocally implicated those
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55 in the top echelon, such as consultants and specialists, in perpetrating academic abuse and
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3 sexual harassment. Studies from elsewhere suggest that maltreatment often comes from
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5 nonmedical staff, but according to Hinze³⁸ and Ahmer et al.¹⁷, senior medical staff ('a
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7 sensible older clinician') were not innocent either. However, this preliminary study
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9 suggests that hierarchy is strongly associated with propensity to dispense abuse. It is
10
11 possible that such occurrences may stem from socialization and child-rearing practices.
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13 Society in Oman is characterized by an authoritarian and authoritative 'parenting style'.
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15 It is possible that senior members, the traditional teacher, or father-figure, demand filial
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17 obedience from the students, in this case junior doctors. This tradition is not denigrating
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19 Omanis because the authoritarian style has also been witnessed emanating from
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21 expatriates, particularly from the Indian sub-continent, and maybe a result of
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23 'maintaining control' in a profession that deals with acute life and death situations. It is
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25 possible that such relationships may play a part in the presently perceived maltreatment
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27 among residents. However, notwithstanding such a view, it appears that maltreatment of
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29 novices in the medical profession exists in many societies including those that do not
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31 prescribe to authoritarian and authoritative parenting styles.^{4,39} Therefore, factors within
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33 the medical culture itself need to be explored in order to devise evidence-based
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35 interventions to mitigate senior members abusing the junior ones.
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44 The majority of residents admitted to receiving most maltreatment from rotation
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46 in internal medicine. However maltreatment was experienced in all three specialties with
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48 verbal and academic abuse ranking the most common types. It is not clear why a medical
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50 rotation ranked first and may be an anomaly of the setting of the research being confined
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52 to one hospital.
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Knowing which type of abuse comes from which source enable educators to focus their resources to prevent maltreatment. Cook, Liutkus and Risdon⁴⁰ have suggested that there is no ‘magic-bullet’ to mitigate the prevailing maltreatment of medical trainees. One possible venue is to institute mandatory courses for medical staff on awareness about the consequences of abuse and maltreatment. Medical school faculty should also raise awareness in tomorrow’s doctors on how to inoculate themselves against abuse and maltreatment. The long-term solution is to screen and eliminate the entrance of personality subtypes that are likely to be prone to abusing others. There is a vast literature suggesting that certain psychosocial histories are likely to be strongly associated with explosive and psychopathic personality. There is evidence to suggest that a substantial number of those who enroll in medical school have temperaments that are akin to the narcissistic personality and tendency for Machiavellianism.²⁹ It would be an insurmountable mission for young doctors to win a battle against senior doctors who have amassed international experience and command high reputation in the community. Medical schools and health care systems should have inbuilt mechanisms where victims of abuse can air their grievances confidentially without consequently jeopardizing their careers.

In Oman, culturally sanctioned mechanisms are needed to prevent the occurrence of abuse as well as support systems for the victims. In an ideal world, it has been stated that “medical school and residency training programs are intended to provide positive educational and mentorship experiences and to inculcate a culture of professionalism and collegiality” (p. 269) [5]. Such an aspiration has yet to be realized. In most occupational settings, provision to deal with deviant behavior does exist. Indeed, there are clauses in

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3 many judicial systems and professional bodies about how to handle unethical standards.
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5 However, such provisions are yet to make entrance into medical training in Oman,
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7 despite their essential importance. For one thing, the perpetrator of maltreatment during
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9 medical training may not be limited to the obvious victims. It is likely that others would
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11 fall prey to abuse including patients when seeking consultations. It is worthwhile
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13 realizing that abuse is known to 'beget' abuse. If this is true, then the abused trainee is
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15 likely to emerge one day as the abuser, setting up a cycle.
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20 These data present residents' self-responses not controlled observations of
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22 behavior, which limit the findings. Self-serving biases are well known in such studies. It
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24 is also possible that recall bias could have contaminated their responses.⁴¹ An integral
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26 part of recall bias, is that when individuals find certain events as emotional debilitating,
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28 the obvious recourse is to repress the memory of those events. Therefore, future studies
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30 should have an in- built mechanism to reduce the likelihood of recall bias.
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34 In addition, Omani culture is known to be culture of 'shame', which means that
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36 many of life's maltreatments are likely to be 'concealed'.⁴² Indeed eleven residents chose
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38 not to participate. Despite the anonymous nature of the present study, it is possible that
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40 incidences of sexual harassment or maltreatment were likely to be 'denied' resulting in
41
42 spurious data. Despite the above-mentioned caveats, interesting issues have emerged
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44 from the present study that needs to be followed up in a wider context.
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48 CONCLUSION

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50 Mistreatment of medical interns is emerging as a global challenge. To our
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52 knowledge, this is the first study from the Arabian Gulf that explores maltreatment and
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54 abuse in a medical setting. Fifty eight residents consented to participate in this present
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3 anonymous survey which consisted of approximately 84% of the interns. In terms of
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5 experience of mistreatment according to gender, males admitted to have experienced
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7 higher levels of mistreatment. In terms of perpetrator of harassment and abuse, it appears
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9 that hierarchy counts. Those who were commanding higher position were more prone to
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11 fall foul to committing maltreatment and abuse. It also appeared the problems were more
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13 rampant in the subspecialists of medicine. Further research is needed to understand
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15 factors influencing mistreatment and draw up guidelines to limit such problems. However
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17 the findings should lead to the identification of factors perpetuating maltreatment and
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19 abuse among medical trainee interns. Thus, evidence-based interventions can be
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21 contemplated.
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32
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35

36 **Competing interests:** None
37

38 **Participant consent:** Obtained.
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40
41 **Ethics approval:** Ethics approval was provided by the local institutional review board
42 (IRB), Research and Ethics Committee of College of Medicine and Health Sciences,
43 Sultan Qaboos University (MREC#382)
44

45 **Conflicts of interest:** none
46

47 **Contributors**

48 M-AS is responsible for study supervision, T-AK and Y-AF are responsible for study
49 concept and design and data collection, A-AM is responsible for integrity of the data and
50 the accuracy of the data analysis and GW and S-AA were responsible for drafting,
51 literature review and scientific approach of the write-up.
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55 **REFERENCES:** 56 57 58 59 60

1. **Borg MG.** The extent and nature of bullying among primary and secondary schoolchildren. *Educ Res* 1999; 41:137-53.
2. **Richman JA,** Rospenda KM, Nawyn SJ, F *et al.* Sexual harassment and generalized workplace abuse among university employees: Prevalence and mental health correlates. *Am J Public Health* 1999; 89:358-63.
3. **Maida AM,** Vasquez A, Herskovic V, *et al.* A report on student abuse during medical training. *Med Teach* 2003; 25:497-501.
4. **White GE:** Sexual harassment during medical training: the perceptions of medical students at a university medical school in Australia. *Med Educ* 2000; 34:980-86.
5. **Coverdale JH,** Balon R, Roberts LW. Mistreatment of trainees: verbal abuse and other bullying behaviors. *Acad Psychiatry* 2009; 33:269-73.
6. **Daugherty SR,** Baldwin DC Jr, Rowley BD. Learning, satisfaction, and mistreatment during medical internship: a national survey of working conditions. *JAMA* 1998; 279:1194-9.
7. **Quine L.** Workplace bullying in junior doctors: questionnaire survey. *BMJ* 2002; 324:878-9.
8. **Askew DA,** Schluter PJ, Dick ML, *et al.* Bullying in the Australian medical workforce: cross-sectional data from an Australian e-Cohort study. *Aust Health Rev* 2012; 36:197-204.
9. **Scott J,** Blanshard C, Child S. Workplace bullying of junior doctors: cross-sectional questionnaire survey. *N Z Med J* 2008 Sep 22; 121(1282):10-4.
10. **Finucane P,** O'Dowd T. Working and training as an intern: a national survey of Irish interns. *Med Teach* 2005; 27:107-13.
11. **Mejía R,** Diego A, Alemán M, *et al.* Perception of mistreatment during medical residency training. *Medicina (B Aires)* 2005; 65: 295-301.
12. **Nagata-Kobayashi S,** Maeno T, Yoshizu M, *et al.* Universal problems during residency: abuse and harassment. *Med Educ* 2009; 43:628-36.
13. **Nagata-Kobayashi S,** Sekimoto M, Koyama H, *et al.* Medical student abuse during clinical clerkships in Japan. *J Gen Intern Med* 2006; 21:212-8
14. **Yildirim D,** Yildirim A, Timucin A. Mobbing behaviors encountered by nurse teaching staff. *Nurs Ethics* 2007; 14:447-63.

15. **Bairy KL**, Thirumalaikolundusubramanian P, Sivagnanam G, *et al.* Bullying among trainee doctors in Southern India: a questionnaire study. *J Postgrad Med* 2007; 53:87-90.
16. **Imran N**, Jawaid M, Haider II, *et al.* Bullying of junior doctors in Pakistan: a cross-sectional survey. *Singapore Med J* 2010; 51: 592-95.
17. **Ahmer S**, Yousafzai AW, Siddiqi M, *et al.* Bullying of trainee psychiatrists in Pakistan: a cross-sectional questionnaire survey. *Acad Psychiatry* 2009; 33:335-39.
18. **Schuchert MK**. The relationship between verbal abuse of medical students and their confidence in their clinical abilities. *Acad Med* 1998; 73: 907-9.
19. **Dyrbye LN**, Thomas MR, Shanafelt TD. Medical student distress: causes, consequences, and proposed solutions. *Mayo Clin Proc* 2005; 80:1613-22.
20. **Sheehan KH**, Sheehan DV, White K, *et al.* A pilot study of medical student 'abuse'. Student perceptions of mistreatment and misconduct in medical school. *JAMA* 1990; 263:533-37.
21. **Aasland OG**, Hem E, Haldorsen T, *et al.* Mortality among Norwegian doctors 1960-2000. *BMC Public Health* 2011; 11:173.
22. **Petersen MR**, Burnett CA. The suicide mortality of working physicians and dentists. *Occup Med (Lond)*. 2008; 58: 25-29.
23. **Tartas M**, Walkiewicz M, Majkovicz M, *et al.* Psychological factors determining success in a medical career: a 10-year longitudinal study. *Med Teach* 2011; 33: e163-72.
23. **Miedema B**, MacIntyre L, Tatemichi S, *et al.* How the medical culture contributes to coworker-perpetrated harassment and abuse of family physicians. *Ann Fam Med* 2012; 10: 111-17.
25. **Ahmed I**, Banu H, Al-Fageer R, *et al.* Cognitive emotions: Depression and anxiety in medical students and staff. *J Crit Care* 2009; 24:e1-7.
26. **Al-Saleh SA**, Al-Madi EM, Al-Angari NS, *et al.* Survey of perceived stress-inducing problems among dental students, Saudi Arabia. *Saudi Dent J* 2010; 22:83-8.
27. **Al-Dabal BK**, Koura MR, Rasheed P, *et al.* A comparative study of perceived stress among female medical and non-medical university students in Dammam, Saudi Arabia. *Sultan Qaboos Univ Med*. 2010; 10:231-40.

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28. **Al-Busaidi Z**, Bhargava K, Al-Ismaily A, *et al.* Prevalence of Depressive Symptoms among University Students in Oman. *Oman Med J* 2011; 26:235-39.
 29. **Al-Adawi SS**. Re: Comparative study of Perceived Stress among Female Medical and Non-Medical University Students in Dammam, Saudi Arabia. *Sultan Qaboos Univ Med J* 2010; 10:410-11.
 30. **Einarsen S**, Raknes BI: Harassment in the workplace and the victimization of men. *Violence Vict* 1997; 12:247-63.
 31. **Richman JA**, Flaherty JA, Rospenda KM, *et al.* Mental health consequences and correlates of reported medical student abuse. *JAMA* 1992; 267(5):692-4.
 32. **Al-Barwani TA**, Albeelyb TS. The Omani Family: Strengths and Challenges. *Marriage & Family Review* 2007;41:119-42.
 33. **Al-Adawi S**. Adolescence in Oman. In Jeffrey Jensen Arnett, Editor. *International Encyclopedia of Adolescence: A Historical and Cultural Survey of Young People around the World* (2 Volume Set). New York: Routledge, 2006, pp. 713-28.
 34. **Eloul L**, Ambusaidi A, Al-Adawi S. Silent Epidemic of Depression in Women in the Middle East and North Africa Region: Emerging tribulation or fallacy? *Sultan Qaboos Univ Med J* 2009; 9: 5-15.
 35. **Nora LM**, McLaughlin MA, Fosson SE, *et al.* Gender discrimination and sexual harassment in medical education: perspectives gained by a 14-school study. *Acad Med* 2002; 77:1226-34.
 36. **Larsson C**, Hensing G, Allbeck P: Sexual and gender-related harassment in medical education and research training: results from a Swedish survey. *Med Educ* 2003, 37:39-50.
 37. **Larkin GL**, Mello MJ. Commentary: doctors without boundaries: the ethics of teacher-student relationships in academic medicine. *Acad Med* 2010; 85:752-55.
 38. **Hinze SW**. 'Am I being over-sensitive?' Women's experience of sexual harassment during medical training. *Health (London)* 2004; 8:101-27.
 39. **Moscarello R**, Margittai KJ, Rossi M. Differences in abuse reported by female and male Canadian medical students. *Can Med Assoc J* 1994; 150: 357-63.
 40. **Cook DJ**, Liutkus JF, Risdon CL, *et al.* Residents' experiences of abuse, discrimination and sexual harassment during residency training. McMaster University Residency Training Programs. *Can Med Assoc J* 1996; 154:1657-65.

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41. **Coughlin SS.** Recall bias in epidemiologic studies. *J ClinEpidemiol* 1990; 43:87-91.
42. **Dwairy M, Van Sickle T.D.** Western psychotherapy in traditional Arabic societies. *Clin Psychol Rev.* 1996; 16: 231-49.

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Table 1: Medical trainee reporting different types of mistreatment according to sex

	♂+♀ (N=58)	♂ (N=28)	♀ (N=30)
VERBAL ABUSE			
Shouted at you	29 (50%)	14 (50%)	15 (50%)
Belittled or humiliated you during meetings or rounds	32 (55.2%)	17 (60.7%)	15 (50%)
Spoken to you un-respectfully	27 (46.6%)	13 (46.4%)	14 (46.7%)
PHYSICAL ABUSE OR THREATS			
Threatened you with physical harms	7 (12.1%)	3 (10.7%)	4 (13.3%)
ACADEMIC ABUSE			
You were asked to carry out some personal services unrelated to patient care or educational activities	17 (29.3%)	10 (35.7%)	7 (23.3%)
Your questions/queries were intentionally not answered	17 (29.3%)	11 (39.3%)	6 (20.0%)
You were forced to refer patient without providing reasonable cause for referral	30 (51.7%)	15 (53.6%)	15 (50%)
You were ask to take consent from very complicated cases	27(46.6%)	16 (57.1%)	11 (36.7%)
You were threatened with failure or giving poor evaluations for reasons unrelated to your academic performance	15(25.9%)	11 (39.3%)	4 (13.3%)
SEXUAL HARASSMENT			
Received jokes or comments against your gender (M/F)	9 (15.5%)	5 (17.9%)	4 (13.3%)
Received compliments or comments about your body or figure	7 (12.1%)	2 (7.1%)	5 (16.7%)
Faced with an offensive body language (e.g. repeated leering, standing too close)	7 (12.1%)	1 (3.6%)	6 (20.0%)

♂= Male

♀= Female

Table 2: Medical trainees reporting different types of mistreatments according to sources/perpetrators

	Verbal Abuse			Physical Abuse			Academic Abuse			Sexual harassment		
	♂	♀	Total	♂	♀	Total	♂	♀	Total	♂	♀	Total
Consultants	21 (75%)	17 (56.7%)	38 (65.5%)	4 (14.3%)	3 (10%)	7 (12.1%)	18 (64.3%)	11 (36.7%)	29 (50%)	4 (14.3%)	5 (16.7%)	9 (15.5%)
Specialists	9 (32.1%)	10 (33.3%)	19 (32.8%)	1 (3.6%)	2 (6.7%)	3 (5.2%)	16 (57.1%)	14 (46.7%)	30 (51.7%)	4 (14.3%)	6 (20%)	10 (17.2%)
Resident	4 (14.3%)	1 (3.3%)	5 (8.6%)	0	0	0	3 (10.7%)	4 (13.3%)	7 (12.1%)	2 (7.1%)	1 (3.3%)	3 (5.2%)
Nurses	6 (21.4%)	12 (40%)	18 (31%)	1 (3.6%)	4 (13.3%)	5 (8.6%)	7 (25%)	7 (23.3%)	14 (24.1%)	2 (7.1%)	0	2 (3.4%)
Patients/ Relative	5 (17.9%)	7 (23.3%)	12 (20.7%)	1 (3.6%)	2 (6.7%)	3 (5.2%)	2 (7.1%)	2 (6.7%)	4 (6.9%)	1 (3.6%)	1 (3.3%)	2 (3.4%)
Others	1 (3.6%)	2 (6.7%)	3 (5.2%)	0	0	0	1 (3.6%)	0	1 (1.7%)	0	0	0

♂ = Male

♀ = Female

Table 3: Medical Trainee Reporting Mistreatment according to Specialty

	ALL (n=58)	MEDICINE	SURGERY	PEDIATRICS
<i>VERBAL ABUSE</i>		32(55.2%)	17(29.3%)	15(25.9%)
Shouted at you	29 (50%)	20(62.5%)	11(64.7%)	9(60%)
Belittled or humiliated you during meetings or rounds	32 (55.2%)	21(65.6%)	10(58.8%)	13(86.7%)
Spoke to you un-respectfully	27 (46.6%)	18(56.2%)	8(47.1%)	11(73.3%)
<i>PHYSICAL ABUSE OR THREATS</i>		11(19%)	1(1.7%)	3(5.2%)
Threatened you with physical harms	7 (12.1%)	11(100%)	1 (100%)	3 (100%)
<i>ACADEMIC ABUSE</i>		35(60.3%)	17(29%)	9(15.5%)
You were asked to carry out some personal services unrelated to patient care or educational activities	17 (29.3%)	13(37.1%)	7(41.2%)	5(55.6%)
Your questions/queries were intentionally not answered	17 (29.3%)	10(28.6%)	9(52.9%)	3(33.3%)
You were forced to refer patient without providing reasonable cause for referral	30 (51.7%)	21(60%)	11(64.7%)	5(55.6%)
You were ask to take consent from very complicated cases	27(46.6%)	20(57.1%)	10(58.8%)	4(44.4%)
You were threatened with failure or giving poor evaluations for reasons unrelated to your academic performance	15(25.9%)	10(28.6%)	4(23.5%)	5(55.6%)
<i>SEXUAL HARASSMENT</i>		10(17.2%)	7(12.1%)	4(6.9%)
Received jokes or comments against your gender (M/F)	9 (15.5%)	5(50%)	5(71.4%)	2(50%)
Received compliments or comments about your body or figure	7 (12.1%)	4(40%)	3(42.9%)	1(25%)
Faced with an offensive body language (e.g. repeated leering, standing too close)	7 (12.1%)	6(60%)	1(14.3%)	2(50%)

Table 4: Medical trainees' narrative for either reporting reason or not reporting maltreatment

Reason/s for not reporting such abuse	%
1. I did not recognize the experience as an abuse at the time that it happened	N=19/58 (32.8%)
2. It was not significant to be reported to those in authority	N=19/58 (32.8%)
3. Reporting such abuse or mistreatment would not accomplish anything	N=24/58 (41.4%)
4. Reporting such mistreatment or abuse would become more troublesome than it was worth	N=25/58 (43.1%)
5. I dealt with the problem directly myself	N=13/58 (22.4%)
6. I did not know to whom I should report or how to complain	N=10/58 (17.2%)
7. I was afraid that reporting such abuse would adversely affect my evaluation or my professional career in future	N=24/58 (41.4%)
8. The abuser apologized to me	N=7/58 (12.1%)
9. I was afraid of not being believed or the problem would not be dealt fairly	N=8/58 (13.8%)
10. I was afraid that the reporting would not be kept confidential	N=17/58 (29.3%)



Pilot study on the prevalence of abuse and mistreatment during clinical internship: a cross-sectional study among first year residents in Oman

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5 **Pilot study on the prevalence of abuse and mistreatment**
6 **during clinical internship: a cross-sectional study among first**
7 **year residents in Oman**
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14 **Mohammed Al-Shafee¹, Yousuf Al-Kaabi¹, Yousuf Al-Farsi¹, Gillian White²,**
15 **Abdullah Al-Maniri¹, Hamed Al-Sinawi² and Samir Al-Adawi²**
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19
20 ¹ Department of Family Medicine and Public Health, College of Medicine and Health
21 Sciences, Sultan Qaboos University, Muscat, Oman
22

23 ² Directorate of Education and Training, Ministry of Health, Oman
24

25 ³ Department of Behavioral Medicine, College of Medicine and Health Sciences, Sultan
26 Qaboos University, Muscat, Oman
27
28

29
30 **Correspondence to:**

31 Dr. Samir Al-Adawi,
32 Department of Behavioral Medicine,
33 College of Medicine and Health Sciences,
34 Sultan Qaboos University, P.O. Box 35,
35 Al-Khoudh 123, Muscat,
36 Sultanate of Oman
37

38
39 Telefax: + 968 24545203
40 Telephone: + 968 24141139
41 E-mail: adawi@squ.edu.om;
42 jimbo@omantel.net.om
43 samir-al-adawi@fulbrightmail.org
44

45 Abdullah Al-Maniri (almaniri@gmail.com)
46 Gillian White (drgillianwhite@yahoo.co.nz)
47 Hamed Al-Sinawi [hamad.senawi@gmail.com]
48 Mohammed Al-Shafee (shafae4@omantel.net.om)
49 Samir Al-Adawi (samir-al-adawi@fulbrightmail.org)
50 Yousuf Al-Farsi (dr.yousufalkaabi@gmail.com)
51 Yousuf Al-Kaabi (dryousufalfarsi@gmail.com)
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ABSTRACT

Objective: To evaluate perceptions of being mistreated during internship among first year Oman Medical Specialty Board residents.

Design: A cross-sectional study

Setting: Training centers for Oman Medical Specialty Board

Participants: First year medical residents following completion of internship. During the study period 2009 – 2010

Method: A cross-sectional survey of 69 first year Medical residents

Results: Of 58 residents (response rate 84%) around 96.6% believed that mistreatment exists. Among different types of mistreatment, verbal and academic abuse was the most commonly reported (87.9%), followed by sexual harassment (24.1%), then physical abuse (22.4%). Forty-four (75.9%) residents had advised at least one of their relatives not to join medical school.

Conclusion: Mistreatment of medical interns is an ethical issue challenging the quality of clinical training. Further research is needed to understand factors influencing mistreatment and draw guidelines to limit such problems.

Key Words: Intern, internship mistreatment, verbal abuse, physical abuse, academic abuse, sexual harassment, Oman.

ARTICLE FOCUS

To understand factors influencing mistreatment and to draw guidelines to limit such problems

Report the experiences of mistreatment among medical trainees in Oman, Arab/Islamic country.

KEY MESSAGES

The data suggests bullying behavior is rampant among medical trainees in Oman.

STRENGTHS AND LIMITATIONS OF THIS STUDY

Bullying behaviors have been reported in different occupational settings include medical profession. There is dearth of study from Arab/Islamic countries.

To our knowledge, this is the first study on this endeavor from this part of the world.

This study is limited with small sample size and its methodology, cross-sectional study

INTRODUCTION:

Forms of abuse and other bullying behaviors have been reported in various occupational settings.¹⁻⁴ Studies carried out in different parts of the world suggest that medical professionals are no exception to maltreatment within institutional settings. Among various medical professionals who have reported abuse, those who are in the early phase of their careers, like interns, are the most vulnerable. According to Coverdale, Balon & Roberts the most common degrading experiences among interns include “threats, intimidation, humiliation, excessive criticism, covert innuendo, exclusion or denial of access to opportunity, undue additions to work requirements, and shifting of responsibilities without appropriate notice” (p.269).⁵

Studies have quantified mistreatment among medical trainees or those who are on the lower ladder of a medical career. Steven et al.⁶ reported in a national survey in the USA that about 93% of medical trainees endorsed the view that they have had at least one experience of mistreatment. Another survey undertaken in the UK⁷, reported that around 84% of medical trainees have been bullied and about 69% had witnessed bullying and harassment during their clinical placements. Other studies from societies that are similar to Western Europe, North American and Asia Pacific regions have also found evidence of maltreatment including Australia^{4, 8}, New Zealand⁹, Ireland¹⁰, Argentina¹¹ and Japan.¹²⁻¹³

Maltreatment of medical trainees is not limited to Western countries.¹⁴⁻¹⁶ Ahmer et al.¹⁷ have reported pervasive and persistent tendencies for medical trainees in Pakistan to be subjected to ‘disrespectful interactions’, ‘belittlement’, ‘undermining’ and ‘humiliation’. Drawing from available literature, Coverdale, Balon & Roberts⁵ have categorized common forms of maltreatment directed towards medical trainees as verbal abuse or humiliation, nonsexual harassment, sexual harassment and forms of prejudice against sexual orientation and ethnicity.

There is a myriad of adverse impacts of mistreatment that can emerge as a result of trainees being subjected to maltreatment¹⁸. Schubert et al.¹⁹ have shown a significant relationship between verbal abuse during medical training and lower levels of confidence, regardless of sex, race, age or levels of ability and temperament. Richman et al.² studied mental health consequences among trainees who were subjected to maltreatment with

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disconcerting findings. There appeared to be tendencies for maltreated trainees to have 'psychopathological outcomes' in the form of unrelenting affective emotions, resorting to 'self-medication' and even dependency on mind altering substances.^{20,21} This is consonant with well known observations that there are high levels of stress and psychological distress among medical trainees.^{22,23} Such prevailing situations have been suggested to play a role in the observed higher rate of suicide among physicians compared to the general population.^{24,25} There is indication that medical trainees who were most distressed at the beginning of their training, and were likely to report more stress and distress in the subsequent course of their lives.²⁶ According to Miedema et al.²⁷, there are inbuilt mechanisms that perpetuate abusive behavior in the medical culture, including working in what is perceived as a stressful environment. This is suggestion that 'abuse begets abuse'²⁸, a view that might implication for fostering a cycle of bullying in medical profession.

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In the Arab world, evidence abounds that much emotional distress is present among medical trainees²⁹⁻³¹ including Oman.³² Although these Arabian studies should be enlightening, most of them are rife with conceptual limitations. Many of them have utilized assessment measures without local validity and therefore these studies fall into the 'category of fallacy'.³³ These studies could also be criticized on the ground that their target population was pre-clinical students. Therefore generalizations cannot be applied to interns. Internship, in parlance of the medical profession, is the period in which new medical graduates learn medical practices in a hospital under supervision, prior to beginning his or her specialization. In Oman, internship consists of three to four month rotations, in which each intern (resident) is rotated through general medicine, general surgery and either pediatrics or obstetrics and gynecology. Following internship in Oman, further medical training is conducted under the auspices of Oman Medical Specialty Board (<http://www.omsb.org>), a governmental body that is responsible for postgraduate clinical training. An integral part of its function is to oversee the wellbeing of trainees, through services that include a specialized office and designated person to which trainees can submit any grievance.

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With evidence of adverse experiences among medical trainees in other parts of the world and the fact that no data has been forthcoming from Oman, the present study

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3 aimed to quantify mistreatment or abuse among Omani medical interns. Interrelated aims
4 were to explore the level of mistreatment among medical trainees according to gender,
5 perpetrator, and specialty, as well as gauge to the reasons for not reporting maltreatment,
6 to the concerned authority.
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10 11 12 **METHODS AND MATERIALS:**

13 14 **Study Population**

15 The study was carried out among first year medical residents following
16 completion of internship. During the study period 2009 – 2010 a total of 69 medical
17 residents were enrolled. The residents were approached to participate in this study during
18 a research workshop conducted in May 2010. Each participant was asked to fill in a
19 questionnaire about their experience and perceptions of mistreatment and abuse with
20 reference to their internship.
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28 29 **ASSESSMENT MEASURES**

30 The Likert-type questionnaire was adapted from those developed by Sheehan et
31 al.²³ Baldwin et al.³⁴ and Uhari et al.³⁵ and focused on indexing ‘verbal abuse’, ‘physical
32 abuse or threats’, ‘academic abuse’ and ‘sexual harassment’ (Table 1). *Physical Abuse* is
33 defined as threat that, if executed, would likely cause physical harm. Other forms of
34 physical abuse, such as, slapping, pushing, hitting, kicking or having objects thrown at
35 the interns are an integral part of the present definition of physical abuse. Physical
36 abuse also entails being placed at unnecessary medical risk. *Academic Abuse* is defined
37 as coercion to carry out some personal services unrelated to the expected role of interns.
38 The concept of academic abuse also encapsulates instances in which interns being
39 excluded from otherwise reasonable learning opportunities offered to others, or are
40 threatened with failure or poor evaluations for reasons unrelated to one’s academic
41 performance. *Sexual Harassment* is defined in the following terms: being subjected to
42 jokes or comments against one’s gender or body figure. Sexual harassment entails being
43 subjected to repeated leering or offered unwanted gifts. Being offered private sessions or
44 better grades in exchange for an extra-marital affair as well as inappropriate touching of a
45 sexual nature constitute examples of sexual harassment.
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3 Various socio-demographic information (e.g. age, sex, year of residency, marital
4 status and current specialty) was also sought from the consenting participants. The
5 participants were also given the option to use free text to describe reasons for reporting or
6 not reporting maltreatment.
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10 The questionnaire was delivered to each participant in a closed envelope, which
11 also contained a description of the study, along with a statement of confidentiality so that
12 informed consent could be obtained. To assure anonymity, participants were explicitly
13 informed not to make any reference to their identity on the questionnaire. Return of a
14 filled out questionnaire was taken as consent to be a participant.
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19 ANALYSIS

20 Both descriptive statistics as raw counts and percentage are presented. The free
21 narrative was assessed using thematic analysis.
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24 The study was approved by the local institutional review board (IRB), and the
25 Research and Ethics Committee of College of Medicine and Health Sciences, Sultan
26 Qaboos University (MREC#382)
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30 RESULTS

31 The results are presented first as simple demographics of the sample and then in
32 relation to the aims of the study. The response rate was 84.2% (58/69 residents) of which
33 30 (51.7%) were female and 28 (48.3%) were male. Their ages ranged from 25 to 35
34 years (mean of 27.83 yrs and standard deviation of 1.63 yrs).
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39 Experience of Mistreatment according to Gender

40 Table 1 shows perceived maltreatment according to gender. Out of total 12 items
41 eliciting maltreatment, males dominated in 6 of them. However, no statistical differences
42 were found between genders on any one item. When each form of maltreatment was
43 collapsed into 'verbal abuse', 'physical abuse or threats', 'academic abuse', and 'sexual
44 harassment', the only category of statistical significance at the 95% confidence level was
45 'academic abuse' where the males reported higher levels of mistreatment ($p \leq 0.004$).
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50 Experience of Mistreatment according to Perpetrator

51 As shown in Table 2, Consultants outshone others in perpetuating verbal abuse
52 and physical abuse. They were also more likely to be guilty of academic abuse toward the
53 male residents ($p = 0.03$). Consultants and Specialists together were implicated in
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3 academic abuse and sexual harassment more than other groups that the residents
4 encountered.
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6 7 **Experience of Mistreatment according to Specialty**

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9 Three specialties (medicine, surgery, pediatrics) were scrutinized for variations in
10 dispensing maltreatment to the residents. As shown in Table 3, the data can be
11 extrapolated in three ways. Firstly, all indices of maltreatment were significantly higher
12 during medical rotation than pediatrics or surgery ($p = 0.005$). Secondly, pediatrics was
13 second highest in dispensing maltreatment. Thirdly, verbal abuse was the highest type of
14 maltreatment reported (36.8%) closely followed by academic abuse (35%).
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19 **Reasons for not reporting Maltreatment**

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21 The major reason for not reporting maltreatment elicited from the free text
22 responses was to avoid further trouble, as the Residents believed that. “Reporting could
23 adversely affect evaluation and professional career.” Such behavior, out of fear, could be
24 seen as secondary abuse. Some respondents did not know how to deal with the problem
25 or preferred to deal with the maltreatment themselves as they “did not know whom to
26 report to or how to make the complaint.” Seven respondents did not report the
27 maltreatment because the perpetrator had “apologized” to them. It was also not
28 uncommon to not recognize “the experience as abuse at the time it happened.”
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37 **DISCUSSION**

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39 To our knowledge the present research is the first to describe four interrelated
40 patterns in relation to maltreatment from the experience of first year medical residents:
41 gender of the victim, types of maltreatment, specialty rotation where maltreatment
42 occurred, and reasons for not reporting maltreatment among Arab countries. Although the
43 intended population was small, the rate of response to the survey was high and the gender
44 distribution of participants was fairly balanced. Most of the participants were undertaking
45 a medical specialty and were in their late twenties. Pending further scrutiny as this should
46 be viewed as a pilot study or sentinel. This survey indicates the rates of maltreatment to
47 be alarming in the present observed cohort. On the whole, the present findings
48 substantiate the view that maltreatment is prevalent during medical training even in this
49 particular population.^{6,7,19,36-37}
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One of the aims of this study was to examine whether there is a gender difference in perceived maltreatment. Maltreatment and sexual abuse (that is abuse of a personal nature) echo the global situation where such patterns are common among working women³⁷ and nonetheless, female doctors.^{39,40} The result of the present study suggests there was no significant as per gender although young female doctors were more likely to experience threats and sexual harassment.

The second interrelated aim of the present quest was to shed light on the perpetrators of maltreatment. The present descriptive data unequivocally implicated those in the top echelon, such as consultants and specialists, in perpetrating academic abuse and sexual harassment. Studies elsewhere suggest that maltreatment often comes from nonmedical staff, but according to Hinze⁴¹ and Ahmer et al.¹⁷ senior medical staff were not innocent either. However, this preliminary study suggests that hierarchy is strongly associated with propensity to dispense abuse. It is possible that such occurrences may stem from cultural patterning. While social institution in Western Europe and North American countries have explicitly made corporal punishment as retribution for an academic misbehavior as unacceptable (a view is enshrined in legal and judicial system), some reports have noted occurrence of aggressive act toward junior doctors.⁴² It is possible that senior members, the traditional teacher, or father-figure, demand filial obedience from the students, in this case junior doctors. However, notwithstanding such a view, it appears that maltreatment of novices in the medical profession exists in many societies including those that do not prescribe to cultural patterning common in Oman.^{4,43} Therefore, factors within the medical culture itself need to be explored in order to devise evidence-based interventions to mitigate senior members abusing the junior ones.

Knowing which type of abuse comes from which source enable educators to focus their resources to prevent maltreatment. Cook, Liutkus and Risdon⁴⁴ have suggested that there is no 'magic-bullet' to mitigate the prevailing maltreatment of medical trainees. One possible venue is to institute mandatory courses for medical staff on awareness about the consequences of abuse and maltreatment. Medical schools and health care systems should have inbuilt mechanisms where victims of abuse can air their grievances confidentially without consequently jeopardizing their careers.

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Some obvious caveats are imperative to mention. This data presents residents' self-responses. Such method of eliciting information is likely to be rife with methodological deficit. Self-serving biases are well known in such studies.⁴⁵ It is also possible that recall bias could have contaminated their responses.⁴⁶ An integral part of recall bias, is that when individuals find certain events as emotional debilitating, the obvious recourse is to repress the memory of those events. Therefore, future studies should have an in-built mechanism to reduce the likelihood of recall bias. Secondly, some insidious cultural factors are likely to play factor in the present observation. The Omani culture is known to be a culture of honor and 'shame', which means that many of life's maltreatments are likely to be 'concealed'.⁴⁷ In fact, eleven residents chose not to participate. Despite the anonymous nature of the present study, it is possible that incidences of sexual harassment or maltreatment were likely to be 'denied' resulting in spurious data. Despite the above-mentioned caveats, interesting issues have emerged from the present study that needs to be followed up in a wider context. Finally, the lack of qualitative data in a phenomenological study of perceived experience is likely to represent a major limitation of this study in particular in a population where such studies have not yet been forthcoming. Therefore, in studies eliciting perceived experiences on cross-cultural samples, inclusion of qualitative research methodology such as interviews are likely to yield more fruitful results.⁴⁸ Such undertaking would have laid the groundwork for more meaningful quantitative research instruments. Thereby, the present finding could be scrutinized with studies that have included some interviews or focus groups so that the participants' interpretations could be explored in depth.

44 CONCLUSION

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Mistreatment of medical interns is emerging as a global challenge. To our knowledge, this is the first study from the Arabian Gulf that explores maltreatment and abuse in a medical setting. Fifty eight residents consented to participate in this present anonymous survey which consisted of approximately 84% of the interns. In terms of experience of mistreatment according to gender, males admitted to have experienced higher levels of mistreatment. In terms of the perpetrator of harassment and abuse, it appears that hierarchy counts. Those who were commanding higher positions were more

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3 prone to fall foul to committing maltreatment and abuse. It also appeared that the
4 problems were more rampant in the subspecialists of medicine. Further research is
5 needed to understand factors influencing mistreatment and draw up guidelines to limit
6 such problems. However the findings should lead to the identification of factors
7 perpetuating maltreatment and abuse among medical trainee interns. Thus, evidence-
8 based interventions can be contemplated.
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34

35 **Contributors**

36 M-AS is responsible for study supervision, T-AK and Y-AF are responsible for study
37 concept and design and data collection, A-AM is responsible for integrity of the data and
38 the accuracy of the data analysis and GW, H- AS and S-AA were responsible for
39 drafting, literature review and scientific approach of the write-up.
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42 **REFERENCES:**

- 43 1. Borg MG. The extent and nature of bullying among primary and secondary
44 schoolchildren. *Educ Res* 1999; 41:137-53.
45
- 46 2. Richman JA, Rospenda KM, Nawyn SJ, F et al. Sexual harassment and
47 generalized workplace abuse among university employees: Prevalence and mental
48 health correlates. *Am J Public Health* 1999; 89:358-63.
49
- 50 3. Maida AM, Vasquez A, Herskovic V, et al. A report on student abuse during
51 medical training. *Med Teach* 2003; 25:497-501.
52
- 53 4. White GE: Sexual harassment during medical training: the perceptions of medical
54 students at a university medical school in Australia. *Med Educ* 2000; 34:980-86.
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5. Coverdale JH, Balon R, Roberts LW. Mistreatment of trainees: verbal abuse and other bullying behaviors. *Acad Psychiatry* 2009; 33:269-73.
6. Daugherty SR, Baldwin DC Jr, Rowley BD. Learning, satisfaction, and mistreatment during medical internship: a national survey of working conditions. *JAMA* 1998; 279:1194-9.
7. Quine L. Workplace bullying in junior doctors: questionnaire survey. *BMJ* 2002; 324:878-9.
8. Askew DA, Schluter PJ, Dick ML, et al. Bullying in the Australian medical workforce: cross-sectional data from an Australian e-Cohort study. *Aust Health Rev* 2012; 36:197-204.
9. Scott J, Blanshard C, Child S. Workplace bullying of junior doctors: cross-sectional questionnaire survey. *N Z Med J* 2008 Sep 22; 121:10-4.
10. Finucane P, O'Dowd T. Working and training as an intern: a national survey of Irish interns. *Med Teach* 2005; 27:107-13.
11. Mejía R, Diego A, Alemán M, et al. Perception of mistreatment during medical residency training. *Medicina (B Aires)* 2005; 65: 295-301.
12. Nagata-Kobayashi S, Maeno T, Yoshizu M, et al. Universal problems during residency: abuse and harassment. *Med Educ* 2009; 43:628-36.
13. Nagata-Kobayashi S, Sekimoto M, Koyama H, et al. Medical student abuse during clinical clerkships in Japan. *J Gen Intern Med* 2006; 21:212-8
14. Yildirim D, Yildirim A, Timucin A. Mobbing behaviors encountered by nurse teaching staff. *Nurs Ethics* 2007; 14:447-63.
15. Bairy KL, Thirumalaikolundusubramanian P, Sivagnanam G, et al. Bullying among trainee doctors in Southern India: a questionnaire study. *J Postgrad Med* 2007; 53:87-90.
16. Imran N, Jawaid M, Haider II, et al. Bullying of junior doctors in Pakistan: a cross-sectional survey. *Singapore Med J* 2010; 51: 592-95.
17. Ahmer S, Yousafzai AW, Siddiqi M, et al. Bullying of trainee psychiatrists in Pakistan: a cross-sectional questionnaire survey. *Acad Psychiatry* 2009; 33:335-39.
18. Dyrbye LN, Harper W, Moutier C, Durning SJ, Power DV, Massie F, et al. A multi-institutional study exploring the impact of positive mental health on medical

- 1
2
3 students' professionalism in an era of high burnout. *Acad Med* 2012; 87: 1024-
4 1031.
5
6
7 19. Schuchert MK. The relationship between verbal abuse of medical students and
8 their confidence in their clinical abilities. *Acad Med* 1998; 73: 907-9.
9
10 20. Dyrbye LN, Thomas MR, Massie FS, Power DV, Eacker A, Harper W, Durning
11 S, Shanafelt TD. Burnout and suicidal ideation among U.S. medical students.
12 *Annals of Internal Medicine* 2008; 149: 334-341.
13
14 21. Bhan, A. Substance abuse among medical professionals: A way of coping with
15 job dissatisfaction and adverse work environments. *Indian J Med Sci* 2009; 63:
16 308-309.
17
18 22. Dyrbye LN, Thomas MR, Shanafelt TD. Medical student distress: causes,
19 consequences, and proposed solutions. *Mayo Clin Proc* 2005; 80:1613-22.
20
21 23. Sheehan KH, Sheehan DV, White K, et al A pilot study of medical student
22 'abuse'. Student perceptions of mistreatment and misconduct in medical school.
23 *JAMA* 1990; 263:533-37.
24
25 24. Aasland OG, Hem E, Haldorsen T, et al. Mortality among Norwegian doctors
26 1960-2000. *BMC Public Health* 2011; 11:173.
27
28 25. Petersen MR, Burnett CA. The suicide mortality of working physicians and
29 dentists. *Occup Med (Lond)* 2008; 58: 25-29.
30
31 26. Tartas M, Walkiewicz M, Majkiewicz M, et al. Psychological factors determining
32 success in a medical career: a 10-year longitudinal study. *Med Teach* 2011; 33:
33 e163-72.
34
35 27. Miedema B, MacIntyre L, Tatemichi S, et al. How the medical culture contributes
36 to coworker-perpetrated harassment and abuse of family physicians. *Ann Fam*
37 *Med* 2012; 10: 111-17.
38
39 28. Al-Adawi S, Al-Bahlani S Domestic violence: "What's love got to do with it?".
40 *Sultan Qaboos Univ Med J.* 2007; 7: 5-14.
41
42 29. Ahmed I, Banu H, Al-Fageer R, et al. Cognitive emotions: Depression and
43 anxiety in medical students and staff. *J Crit Care* 2009; 24:e1-7.
44
45 30. Al-Saleh SA, Al-Madi EM, Al-Angari NS, et al. Survey of perceived stress-
46 inducing problems among dental students, Saudi Arabia. *Saudi Dent J* 2010;
47 22:83-8.
48
49
50
51
52
53
54
55
56
57
58
59
60

- 1
2
3 31. Al-Dabal BK, Koura MR, Rasheed P, et al. A comparative study of perceived
4 stress among female medical and non-medical university students in Dammam,
5 Saudi Arabia. *Sultan Qaboos Univ Med* 2010; 10:231–40.
6
7
- 8 32. Al-Busaidi Z, Bhargava K, Al-Ismaily A, et al. Prevalence of Depressive
9 Symptoms among University Students in Oman. *Oman Med J* 2011; 26:235-39.
10
- 11 33. Al-Adawi SS. Re: Comparative study of Perceived Stress among Female Medical
12 and Non-Medical University Students in Dammam, Saudi Arabia. *Sultan Qaboos*
13 *Univ Med J* 2010; 10:410-11.
14
- 15 34. Baldwin DC Jr, Daugherty SR, Eckenfels EJ: Student perceptions of mistreatment
16 and harassment during medical school: a survey of ten United States schools.
17 *West J Med* 1991, 155:140-145.
18
- 19 35. Uhari M, Kokkonen J, Nuutinen M, Vainionpää L, Rantala H, Lautala P,
20 Väyrynen M: Medical student abuse: An international phenomenon. *JAMA* 1994,
21 271:1049-1051.
22
- 23 36. Einarsen S, Raknes BI: Harassment in the workplace and the victimization of
24 men. *Violence Vict* 1997; 12:247-63.
25
- 26 37. Richman JA, Flaherty JA, Rospenda KM, et al. Mental health consequences and
27 correlates of reported medical student abuse. *JAMA* 1992; 267: 692-4.
28
- 29 38. Eloul L, Ambusaidi A, Al-Adawi S. Silent Epidemic of Depression in Women in
30 the Middle East and North Africa Region: Emerging tribulation or fallacy? *Sultan*
31 *Qaboos Univ Med J* 2009; 9: 5-15.
32
- 33 39. Nora LM, McLaughlin MA, Fosson SE, et al. Gender discrimination and sexual
34 harassment in medical education: perspectives gained by a 14-school study. *Acad*
35 *Med* 2002; 77:1226-34.
36
- 37 40. Larsson C, Hensing G, Allbeck P: Sexual and gender-related harassment in
38 medical education and research training: results from a Swedish survey. *Med*
39 *Educ* 2003, 37:39-50.
40
- 41 41. Hinze SW. 'Am I being over-sensitive?' Women's experience of sexual
42 harassment during medical training. *Health (London)* 2004; 8:101-27.
43
- 44 42. Madhiwalla N, Roy N. Assaults on public hospital staff by patients and their
45 relatives: an inquiry. *Indian J Med Ethics* 2006, 3; 51-54.
46
- 47 43. Moscarello R, Margittai KJ, Rossi M. Differences in abuse reported by female
48 and male Canadian medical students. *Can Med Assoc J* 1994; 150: 357-63.
49
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53
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57
58
59
60
44. Cook DJ, Liutkus JF, Risdon CL, et al. Residents' experiences of abuse, discrimination and sexual harassment during residency training. McMaster University Residency Training Programs. *Can Med Assoc J* 1996; 154:1657-65.
45. Mezulis AH, Abramson LY, Hyde JS, Hankin BL. Is there a universal positivity bias in attributions? A meta-analytic review of individual, developmental, and cultural differences in the self-serving attributional bias. *Psychol Bull* 2004; 130:711-47.
46. Coughlin SS. Recall bias in epidemiologic studies. *J Clin Epidemiol* 1990; 43:87-91.
47. Dwairy M, Van Sickle T.D. Western psychotherapy in traditional Arabic societies. *Clin Psychol Rev.* 1996; 16: 231-49.
48. Al-Adawi S, Al-Busaidi Z, Al-Adawi SS, Burke DT. Families Coping With Disability Due to Brain Injury in Oman: Attribution to Belief in Spirit Infestation and Ensorcellment. *SAGE Open* July-September 2012: 1-8 DOI: 10.1177/2158244012457400.

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Table 1: Medical trainee reporting different types of mistreatment according to sex

	♂+♀ (N=58)	♂ (N=28)	♀ (N=30)
VERBAL ABUSE			
Shouted at you	29 (50%)	14 (50%)	15 (50%)
Belittled or humiliated you during meetings or rounds	32 (55.2%)	17 (60.7%)	15 (50%)
Spoken to you un-respectfully	27 (46.6%)	13 (46.4%)	14 (46.7%)
PHYSICAL ABUSE OR THREATS			
Threatened you with physical harms	7 (12.1%)	3 (10.7%)	4 (13.3%)
ACADEMIC ABUSE			
You were asked to carry out some personal services unrelated to patient care or educational activities	17 (29.3%)	10 (35.7%)	7 (23.3%)
Your questions/queries were intentionally not answered	17 (29.3%)	11 (39.3%)	6 (20.0%)
You were forced to refer patient without providing reasonable cause for referral	30 (51.7%)	15 (53.6%)	15 (50%)
You were asked to take consent from very complicated cases	27 (46.6%)	16 (57.1%)	11 (36.7%)
You were threatened with failure or giving poor evaluations for reasons unrelated to your academic performance	15 (25.9%)	11 (39.3%)	4 (13.3%)
SEXUAL HARASSMENT			
Received jokes or comments against your gender (M/F)	9 (15.5%)	5 (17.9%)	4 (13.3%)
Received compliments or comments about your body or figure	7 (12.1%)	2 (7.1%)	5 (16.7%)
Faced with an offensive body language (e.g. repeated leering, standing too close)	7 (12.1%)	1 (3.6%)	6 (20.0%)

♂= Male

♀= Female

Table 2: Medical trainees reporting different types of mistreatments according to sources/perpetrators

	Verbal Abuse			Physical Abuse			Academic Abuse			Sexual harassment		
	♂	♀	Total	♂	♀	Total	♂	♀	Total	♂	♀	Total
Consultants	21 (75%)	17 (56.7%)	38 (65.5%)	4 (14.3%)	3 (10%)	7 (12.1%)	18 (64.3%)	11 (36.7%)	29 (50%)	4 (14.3%)	5 (16.7%)	9 (15.5%)
Specialists	9 (32.1%)	10 (33.3%)	19 (32.8%)	1 (3.6%)	2 (6.7%)	3 (5.2%)	16 (57.1%)	14(46.7%)	30 (51.7%)	4 (14.3%)	6 (20%)	10 (17.2%)
Resident	4 (14.3%)	1 (3.3%)	5 (8.6%)	0	0	0	3 (10.7%)	4 (13.3%)	7 (12.1%)	2 (7.1%)	1(3.3%)	3 (5.2%)
Nurses	6 (21.4%)	12(40%)	18 (31%)	1 (3.6%)	4(13.3%)	5 (8.6%)	7 (25%)	7 (23.3%)	14 (24.1%)	2 (7.1%)	0	2 (3.4%)
Patients/ Relative	5 (17.9%)	7(23.3%)	12 (20.7%)	1 (3.6%)	2(6.7%)	3 (5.2%)	2 (7.1%)	2 (6.7%)	4 (6.9%)	1 (3.6%)	1 (3.3%)	2 (3.4%)
Others	1 (3.6%)	2(6.7%)	3 (5.2%)	0	0	0	1 (3.6%)	0	1 (1.7%)	0	0	0

♂= Male

♀= Female

Table 3: Medical Trainee Reporting Mistreatment according to Specialty

	ALL (n=58)	MEDICINE	SURGERY	PEDIATRICS
<i>VERBAL ABUSE</i>		32(55.2%)	17(29.3%)	15(25.9%)
Shouted at you	29 (50%)	20(62.5%)	11(64.7%)	9(60%)
Belittled or humiliated you during meetings or rounds	32 (55.2%)	21(65.6%)	10(58.8%)	13(86.7%)
Spoke to you un-respectfully	27 (46.6%)	18(56.2%)	8(47.1%)	11(73.3%)
<i>PHYSICAL ABUSE OR THREATS</i>		11(19%)	1(1.7%)	3(5.2%)
Threatened you with physical harms	7 (12.1%)	11(100%)	1 (100%)	3 (100%)
<i>ACADEMIC ABUSE</i>		35(60.3%)	17(29%)	9(15.5%)
You were asked to carry out some personal services unrelated to patient care or educational activities	17 (29.3%)	13(37.1%)	7(41.2%)	5(55.6%)
Your questions/queries were intentionally not answered	17 (29.3%)	10(28.6%)	9(52.9%)	3(33.3%)
You were forced to refer patient without providing reasonable cause for referral	30 (51.7%)	21(60%)	11(64.7%)	5(55.6%)
You were ask to take consent from very complicated cases	27(46.6%)	20(57.1%)	10(58.8%)	4(44.4%)
You were threatened with failure or giving poor evaluations for reasons unrelated to your academic performance	15(25.9%)	10(28.6%)	4(23.5%)	5(55.6%)
<i>SEXUAL HARASSMENT</i>		10(17.2%)	7(12.1%)	4(6.9%)
Received jokes or comments against your gender (M/F)	9 (15.5%)	5(50%)	5(71.4%)	2(50%)
Received compliments or comments about your body or figure	7 (12.1%)	4(40%)	3(42.9%)	1(25%)
Faced with an offensive body language (e.g. repeated leering, standing too close)	7 (12.1%)	6(60%)	1(14.3%)	2(50%)

Table 4: Medical trainees' narrative for either reporting reason or not reporting maltreatment

Reason/s for not reporting such abuse	%
1. I did not recognize the experience as an abuse at the time that it happened	N=19/58 (32.8%)
2. It was not significant to be reported to those in authority	N=19/58 (32.8%)
3. Reporting such abuse or mistreatment would not accomplish anything	N=24/58 (41.4%)
4. Reporting such mistreatment or abuse would become more troublesome than it was worth	N=25/58 (43.1%)
5. I dealt with the problem directly myself	N=13/58 (22.4%)
6. I did not know to whom I should report or how to complain	N=10/58 (17.2%)
7. I was afraid that reporting such abuse would adversely affect my evaluation or my professional career in future	N=24/58 (41.4%)
8. The abuser apologized to me	N=7/58 (12.1%)
9. I was afraid of not being believed or the problem would not be dealt fairly	N=8/58 (13.8%)
10. I was afraid that the reporting would not be kept confidential	N=17/58 (29.3%)

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Prevalence Pilot study on the prevalence of abuse and mistreatment during clinical internship: a cross-sectional study among first year residents in Oman

Mohammed Al-Shafee¹, Yousuf Al-Kaabi¹, Yousuf Al-Farsi¹, Gillian White²,
Abdullah Al-Maniri¹, Hamed Al-Sinawi² and Samir Al-Adawi²

¹Department of Family Medicine and Public Health, College of Medicine and Health Sciences, Sultan Qaboos University, Muscat, Oman

²Directorate of Education and Training, Ministry of Health, Oman

³Department of Behavioral Medicine, College of Medicine and Health Sciences, Sultan Qaboos University, Muscat, Oman

Correspondence to:

Dr. Samir Al-Adawi,
Department of Behavioral Medicine,
College of Medicine and Health Sciences,
Sultan Qaboos University, P.O. Box 35,
Al-Khoudh 123, Muscat,
Sultanate of Oman

Telefax: + 968 24545203
Telephone: + 968 24141139
E-mail: adawi@squ.edu.om;
jimbo@omantel.net.om
samir-al-adawi@fulbrightmail.org

Abdullah Al-Maniri (almaniri@gmail.com)
Gillian White (drgillianwhite@yahoo.co.nz)
Hamed Al-Sinawi [hamad.senawi@gmail.com]
Mohammed Al-Shafee (shafae4@omantel.net.om)
Samir Al-Adawi (samir-al-adawi@fulbrightmail.org)
Yousuf Al-Farsi (dr.yousufalkaabi@gmail.com)
Yousuf Al-Kaabi (dryousufalfarsi@gmail.com)

ABSTRACT

Objective: To evaluate ~~the experience and~~ perceptions of being mistreated during internship among first year Oman Medical Specialty Board residents.

Design: A cross-sectional study

Setting: Training centers for Oman Medical Specialty Board

Participants: First year medical residents following completion of internship. During the study period 2009 – 2010

Method: A cross-sectional survey of 69 first year Medical residents

Results: Of 58 residents (response rate 84%) around 96.6% believed that mistreatment exists. Among different types of mistreatment, verbal and academic abuse was the most commonly reported (87.9%), followed by sexual harassment (24.1%), then physical abuse (22.4%). Forty-four (75.9%) residents had advised at least one of their relatives not to join medical school.

Conclusion: Mistreatment of medical interns is an ethical issue challenging the quality of clinical training. Further research is needed to understand factors influencing mistreatment and draw guidelines to limit such problems.

Key Words: Intern, internship mistreatment, verbal abuse, physical abuse, academic abuse, sexual harassment, Oman.

ARTICLE FOCUS

To understand factors influencing mistreatment and to draw guidelines to limit such problems

Report the experiences of mistreatment among medical trainees in Oman, Arab/Islamic country.

KEY MESSAGES

The data suggests bullying behavior is rampant among medical trainees in Oman.

STRENGTHS AND LIMITATIONS OF THIS STUDY

Bullying behaviors have been reported in different occupational settings include medical profession. There is dearth of study from Arab/Islamic countries.

To our knowledge, this is the first study on this endeavor from this part of the world.

This study is limited with small sample size and its methodology, cross-sectional study

INTRODUCTION:

~~Different forms~~Forms of abuse and other bullying behaviors have been reported in ~~different~~various occupational settings.¹⁻⁴ Studies carried out in different parts of the world suggest that medical professionals are no exception to maltreatment within institutional settings. Among various medical professionals who have reported abuse, those who are in the early phase of their careers, like interns, are the most vulnerable. According to Coverdale, Balon & Roberts the most common degrading experiences among interns include “threats, intimidation, humiliation, excessive criticism, covert innuendo, exclusion or denial of access to opportunity, undue additions to work requirements, and shifting of responsibilities without appropriate notice”^{(?) (p.269)-}.⁵

~~There are studies that~~ Studies have quantified mistreatment among medical trainees or those who are on the lower ladder of a medical career. Steven et al.⁶ reported in a national survey in the USA that about 93% of medical trainees endorsed the view that they have had at least one experience of mistreatment. Another survey undertaken in the UK⁷, reported that around 84% of medical trainees have been bullied and about 69% had witnessed bullying and harassment during their clinical placements. Other studies from societies that are similar to Western Europe ~~and~~, North American, ~~and~~ Asia Pacific regions have also found evidence of maltreatment including Australia^{4, 8}, New Zealand⁹, Ireland¹⁰, Argentina¹¹ and Japan.¹²⁻¹³

Maltreatment of medical trainees is not limited to Western countries.¹⁴⁻¹⁶ Ahmer et al.¹⁷ have reported pervasive and persistent tendencies for medical trainees in Pakistan to be subjected to ‘disrespectful interactions’, ‘belittlement’, ‘undermining’ and ‘humiliation’. Drawing from available literature, Coverdale, Balon & Roberts⁵ have categorized common forms of maltreatment directed towards medical trainees as verbal abuse or humiliation, nonsexual harassment, sexual harassment and forms of prejudice against sexual orientation and ethnicity.

There is a myriad of adverse impacts of mistreatment that can emerge as a result of trainees being subjected to maltreatment¹⁸. Schubert et al.¹⁹ have shown a significant relationship between verbal abuse during medical training and lower levels of confidence, regardless of sex, race, age or levels of ability and temperament. Richman et al.² studied

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mental health consequences among trainees who were subjected to maltreatment with disconcerting findings. There appeared to be tendencies for maltreated trainees to have ‘psychopathological outcomes’ in the form of unrelenting affective emotions, resorting to ‘self-medication’ and even dependency on mind altering substances.^{20,21} This is consonant with well known observations that there are high levels of stress and psychological distress among medical trainees.^{22,23} Such prevailing situations have been suggested to play a role in the observed higher rate of suicide among physicians compared to the general population.~~The picture is even bleaker with the findings~~^{24,25} There is indication that medical trainees, who were most distressed at the beginning of their training, and were likely to report more stress and distress in the subsequent course of their lives.²⁶ According to Miedema et al.²⁷, there are inbuilt mechanisms that perpetuate abusive behavior in the medical culture, including working in what is perceived as a stressful environment. This is suggestion that ‘abuse begets abuse’²⁸, a view that might implication for fostering a cycle of bullying in medical profession.

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In the Arab world, evidence abounds that much emotional distress is present among medical ~~trainees~~²⁵⁻²⁷ trainees²⁹⁻³¹ including Oman.^{28,32} Although these Arabian studies should be enlightening, most of them are rife with conceptual limitations. Many of them have utilized assessment measures without local validity and therefore these studies fall into the ‘category of fallacy’.^{29,33} These studies could also be criticized on the ground that their target population was pre-clinical students. Therefore generalizations cannot be applied to interns. Internship, in parlance of the medical profession, is the period in which new medical graduates learn medical practices in a hospital under supervision, prior to beginning his or her specialization. In Oman, internship consists of three to four month rotations, in which each intern (resident) is rotated through general medicine, general surgery and either pediatrics or obstetrics and gynecology. Following internship in Oman, further medical training is conducted under the auspices of Oman Medical Specialty Board (<http://www.omsb.org>), a governmental body that is responsible for postgraduate clinical training. An integral part of its function is to oversee the wellbeing of trainees, through services that include a specialized office and designated person to which trainees can submit any grievance.

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With evidence of adverse experiences among medical trainees in other parts of the world and the fact that no data has been forthcoming from Oman, the present study aimed to quantify mistreatment or abuse among Omani medical interns. Interrelated aims were to explore ~~experiences~~the level of mistreatment among medical trainees according to gender, perpetrator, and specialty, as well as gauge to the reasons for not reporting maltreatment, to the concerned authority.

METHODS AND MATERIALS:

Study Population

The study was carried out among first year medical residents following completion of internship. During the study period 2009 – 2010 a total of 69 medical residents were enrolled. The residents were approached to participate in this study during a research workshop conducted in May 2010. Each participant was asked to fill in a questionnaire about their experience and perceptions of mistreatment and abuse with reference to their internship.

ASSESSMENT MEASURES

The Likert-type questionnaire was adapted from those developed by Sheehan et al.²³ Baldwin et al.³⁴ and Uhari et al.³⁵ and focused on indexing ‘verbal abuse’, ‘physical abuse or threats’, ‘academic abuse’ and ‘sexual harassment’.~~In addition, various~~ (Table 1). Physical Abuse is defined as threat that, if executed, would likely cause physical harm. Other forms of physical abuse, such as, slapping, pushing, hitting, kicking or having objects thrown at the interns are an integral part of the present definition of physical abuse. Physical abuse also entails being placed at unnecessary medical risk. Academic Abuse is defined as coercion to carry out some personal services unrelated to the expected role of interns. The concept of academic abuse also encapsulates instances in which interns being excluded from otherwise reasonable learning opportunities offered to others, or are threatened with failure or poor evaluations for reasons unrelated to one’s academic performance. Sexual Harassment is defined in the following terms: being subjected to jokes or comments against one’s gender or body figure. Sexual harassment entails being subjected to repeated leering or offered unwanted gifts. Being offered

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8 private sessions or better grades in exchange for an extra-marital affair as well as
9 inappropriate touching of a sexual nature constitute examples of sexual harassment.

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11 Various socio-demographic information (e.g. age, sex, year of residency, marital
12 status and current specialty) ~~were included~~ was also sought from the consenting
13 participants. The participants were also given the option to use free text to describe
14 reasons for reporting or not reporting maltreatment.
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17 The questionnaire was delivered to each participant in a closed envelope, which
18 also contained a description of the study, along with a statement of confidentiality so that
19 informed consent could be obtained, ~~and statement of confidentiality.~~ To assure
20 anonymity, participants were explicitly informed not to make any reference to their
21 identity on the questionnaire. Return of a filled out questionnaire was taken as consent to
22 be a participant.
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25 ANALYSIS

26 ~~Data was entered on EPI data software and transferred to SPSS version 17.0 for~~
27 ~~analysis.~~ Both descriptive ~~and inferential~~ statistics ~~were used as~~ appropriate. ~~Freeraw~~
28 counts and percentage are presented. The free narrative was assessed using thematic
29 analysis.
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32 The study was approved by the local institutional review board (IRB), and the
33 Research and Ethics Committee of College of Medicine and Health Sciences, Sultan
34 Qaboos University (MREC#382)
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37 RESULTS

38 The results are presented first as simple demographics of the sample and then in
39 relation to the aims of the study. The response rate was 84.2% (58/69 residents) of which
40 30 (51.7%) were female and 28 (48.3%) were male. Their ages ranged from 25 to 35
41 years (mean of 27.83 yrs and standard deviation of 1.63 yrs).
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44 Experience of Mistreatment according to Gender

45 Table 1 shows perceived maltreatment according to gender. Out of total 12 items
46 eliciting maltreatment, males dominated in 6 of them. However, no statistical differences
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were found between genders on any one item. When each form of maltreatment was collapsed into 'verbal abuse', 'physical abuse or threats', 'academic abuse', and 'sexual harassment', the only category of statistical significance at the 95% confidence level was 'academic abuse' where the males reported higher levels of mistreatment ($p \leq 0.004$).

Experience of Mistreatment according to Perpetrator

As shown in Table 2, Consultants outshone others in perpetuating verbal abuse and physical abuse. They were also more likely to be guilty of academic abuse toward the male residents ($p = 0.03$). Consultants and Specialists together were implicated in academic abuse and sexual harassment more than other groups that the residents encountered.

Experience of Mistreatment according to Specialty

Three specialties (medicine, surgery, pediatrics) were scrutinized for variations in dispensing maltreatment to the residents. As shown in Table 3, the data can be extrapolated in three ways. Firstly, ~~notoriety of~~ all indices of maltreatment were significantly higher during medical rotation than pediatrics or surgery ($p = 0.005$). Secondly, ~~overall~~ pediatrics was second highest, ~~although verbal abuse, academic abuse and sexual harassment was second to medicine during surgical rotation in dispensing maltreatment.~~ Thirdly, verbal abuse was the highest type of maltreatment reported (36.8%) closely followed by academic abuse (35%).

Reasons for not reporting Maltreatment

The major reason for not reporting maltreatment elicited from the free text responses was to avoid further trouble ~~and thus maltreatment was concealed, as the Residents believed that.~~ "Reporting could adversely affect ~~my~~ evaluation and professional career~~...~~." Such behavior, out of fear, could be seen as secondary abuse. Some respondents did not know how to deal with the problem or preferred to deal with the maltreatment themselves. ~~"I as they~~ "did not know ~~to~~ whom ~~I should~~to report ~~to~~ or how to ~~complain.~~" ~~"I dealt with~~make the ~~problem directly myself.~~"complaint." Seven respondents did not report the maltreatment because the perpetrator ~~had~~ "apologized" to ~~me.~~them. It was also not uncommon to not recognize "the experience as abuse at the time it happened."

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DISCUSSION

To our knowledge the present research is the first to describe four interrelated patterns in relation to maltreatment from the experience of first year medical residents: gender of the victim, types of maltreatment, specialty rotation where maltreatment occurred, and reasons for not reporting maltreatment, ~~in the among~~ Arab countries. Although the intended population was small, the rate of response to the survey was high and the gender distribution of participants was fairly balanced. Most of the participants were undertaking a medical specialty and were in their late twenties. Pending further scrutiny as this should be viewed as a pilot study or sentinel. This survey indicates the rates of maltreatment to be alarming in the present observed cohort. On the whole, the present findings substantiate the view that maltreatment is prevalent during medical training.^{6,7,18,30,31} ~~and it appears that maltreatment and abuse is the rule rather than the exception. The first principle in medicine is 'primum non nocere' (first do no harm)—Hippocrates may have also been referring to the well being of the young medical trainees, even in this particular population.~~^{6,7,19,36-37}

One of the aims of this study was to examine whether there is a gender difference in perceived maltreatment. ~~The result suggests there was no significant difference although young female doctors were more likely to experience threats and sexual harassment. In past decades, Oman has made rapid progress in eroding a traditional gender gap. Both universal free education for women and the resultant female empowerment have been catalysts for such change.³² As a result, the country has witnessed that women's enrollment to higher education appears to be outstripping those of their male counterparts³³, a feat that is globally supported with emerging evidence that females generally perform better across the board in indices of education. With education being the engine of social emancipation, women have made a desirable entrance into Oman's workforce. Maltreatment and sexual abuse (that is abuse of a personal nature) ~~echoes~~ the global situation where such patterns are common among working ~~women~~³⁴ women³⁷ and nonetheless, female doctors.^{35,36} ~~In academie performance, however women are less likely to be maltreated than males. This interesting finding could be attributed to malingering among males or more studious females. These assumptions could be further tested. Regardless of assumptions there is a strong rationale~~~~

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8 ~~for instituting teaching about healthy workplace ethics.^{37,39,40} The result of the present~~
9 ~~study suggests there was no significant as per gender although young female doctors~~
10 ~~were more likely to experience threats and sexual harassment.~~

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The second interrelated aim of the present quest was to shed light on the perpetrators of maltreatment. The present descriptive data unequivocally implicated those in the top echelon, such as consultants and specialists, in perpetrating academic abuse and sexual harassment. Studies ~~from~~ elsewhere suggest that maltreatment often comes from nonmedical staff, but according to [Hinze³⁸](#) [Hinze⁴¹](#) and [Ahmer et al.⁻¹⁷](#); senior medical staff ~~(‘a sensible older clinician’)~~ were not innocent either. However, this preliminary study suggests that hierarchy is strongly associated with propensity to dispense abuse. It is possible that such occurrences may stem from ~~socialization and child-rearing practices. Society in Oman is characterized by an authoritarian and authoritative ‘parenting style’.~~ ~~cultural patterning. While social institution in Western Europe and North American countries have explicitly made corporal punishment as retribution for an academic misbehavior as unacceptable (a view is enshrined in legal and judicial system), some reports have noted occurrence of aggressive act toward junior doctors.⁴²~~ It is possible that senior members, the traditional teacher, or father-figure, demand filial obedience from the students, in this case junior doctors. ~~This tradition is not denigrating Omanis because the authoritarian style has also been witnessed emanating from expatriates, particularly from the Indian sub-continent, and maybe a result of ‘maintaining control’ in a profession that deals with acute life and death situations. It is possible that such relationships may play a part in the presently perceived maltreatment among residents.~~ However, notwithstanding such a view, it appears that maltreatment of novices in the medical profession exists in many societies including those that do not prescribe to ~~authoritarian and authoritative parenting styles.^{4,39}~~ ~~cultural patterning common in Oman.^{4,43}~~ Therefore, factors within the medical culture itself need to be explored in order to devise evidence-based interventions to mitigate senior members abusing the junior ones.

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~~The majority of residents admitted to receiving most maltreatment from rotation in internal medicine. However maltreatment was experienced in all three specialties with verbal and academic abuse ranking the most common types. It is not clear why a medical~~

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8 rotation ranked first and may be an anomaly of the setting of the research being confined
9 to one hospital.

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12 Knowing which type of abuse comes from which source enable educators to focus
13 their resources to prevent maltreatment. Cook, Liutkus and ~~Risdon~~⁴⁰Risdon⁴⁴ have
14 suggested that there is no 'magic-bullet' to mitigate the prevailing maltreatment of
15 medical trainees. One possible venue is to institute mandatory courses for medical staff
16 on awareness about the consequences of abuse and maltreatment. ~~Medical school faculty
17 should also raise awareness in tomorrow's doctors on how to inoculate themselves
18 against abuse and maltreatment. The long term solution is to screen and eliminate the
19 entrance of personality subtypes that are likely to be prone to abusing others. There is a
20 vast literature suggesting that certain psychosocial histories are likely to be strongly
21 associated with explosive and psychopathic personality. There is evidence to suggest that
22 a substantial number of those who enroll in medical school have temperaments that are
23 akin to the narcissistic personality and tendency for Machiavellianism.²⁹ It would be an
24 insurmountable mission for young doctors to win a battle against senior doctors who have
25 amassed international experience and command high reputation in the community.~~
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27 Medical schools and health care systems should have inbuilt mechanisms where victims
28 of abuse can air their grievances confidentially without consequently jeopardizing their
29 careers.

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32 In Oman, culturally sanctioned mechanisms are needed to prevent the occurrence
33 of abuse as well as support systems for the victims. In an ideal world, it has been stated
34 that "medical school and residency training programs are intended to provide positive
35 educational and mentorship experiences and to inculcate a culture of professionalism and
36 collegiality" (p. 269) [5]. Such an aspiration has yet to be realized. In most occupational
37 settings, provision to deal with deviant behavior does exist. Indeed, there are clauses in
38 many judicial systems and professional bodies about how to handle unethical standards.
39 However, such provisions are yet to make entrance into medical training in Oman,
40 despite their essential importance. For one thing, the perpetrator of maltreatment during
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8 ~~medical training may not be limited to the~~Some obvious victims. It is likely that others
9 ~~would fall prey to abuse including patients when seeking consultations. It is worthwhile~~
10 ~~realizing that abuse is known to ‘beget’ abuse. If this is true, then the abused trainee is~~
11 ~~likely to emerge one day as the abuser, setting up a cycle.~~

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15 ~~These~~caveats are imperative to mention. This data ~~present~~presents residents' self-
16 responses ~~not controlled observations of behavior, which limit the findings.~~ Such
17 ~~method of eliciting information is likely to be rife with methodological deficit.~~ Self-
18 serving biases are well known in such studies.⁴⁵ It is also possible that recall bias could
19 have contaminated their responses.^{44,46} An integral part of recall bias, is that when
20 individuals find certain events as emotional debilitating, the obvious recourse is to
21 repress the memory of those events. Therefore, future studies should have an in- built
22 mechanism to reduce the likelihood of recall bias.

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31 ~~In addition,~~ Secondly, some insidious cultural factors are likely to play factor in
32 ~~the present observation. The~~ Omani culture is known to be a culture of honor and 'shame',
33 which means that many of life's maltreatments are likely to be 'concealed'.⁴² ~~Indeed~~⁴⁷ In
34 ~~fact,~~ eleven residents chose not to participate. Despite the anonymous nature of the
35 present study, it is possible that incidences of sexual harassment or maltreatment were
36 likely to be 'denied' resulting in spurious data. Despite the above-mentioned caveats,
37 interesting issues have emerged from the present study that needs to be followed up in a
38 wider context. ~~Finally, the lack of qualitative data in a phenomenological study of~~
39 ~~perceived experience is likely to represent a major limitation of this study in particular in~~
40 ~~a population where such studies have not yet been forthcoming. Therefore, in studies~~
41 ~~eliciting perceived experiences on cross-cultural samples, inclusion of qualitative~~
42 ~~research methodology such as interviews are likely to yield more fruitful results.~~⁴⁸ Such
43 ~~undertaking would have laid the groundwork for more meaningful quantitative research~~
44 ~~instruments. Thereby, the present finding could be scrutinized with studies that have~~

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8 included some interviews or focus groups so that the participants' interpretations could be
9 explored in depth.

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CONCLUSION

Mistreatment of medical interns is emerging as a global challenge. To our knowledge, this is the first study from the Arabian Gulf that explores maltreatment and abuse in a medical setting. Fifty eight residents consented to participate in this present anonymous survey which consisted of approximately 84% of the interns. In terms of experience of mistreatment according to gender, males admitted to have experienced higher levels of mistreatment. In terms of the perpetrator of harassment and abuse, it appears that hierarchy counts. Those who were commanding higher ~~position~~positions were more prone to fall foul to committing maltreatment and abuse. It also appeared that the problems were more rampant in the subspecialists of medicine. Further research is needed to understand factors influencing mistreatment and draw up guidelines to limit such problems. However the findings should lead to the identification of factors perpetuating maltreatment and abuse among medical trainee interns. Thus, evidence-based interventions can be contemplated.

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Competing interests: None

Participant consent: Obtained.

Ethics approval: Ethics approval was provided by the local institutional review board (IRB), Research and Ethics Committee of College of Medicine and Health Sciences, Sultan Qaboos University (MREC#382)

Conflicts of interest: none

Contributors

M-AS is responsible for study supervision, T-AK and Y-AF are responsible for study concept and design and data collection, A-AM is responsible for integrity of the data and

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8 the accuracy of the data analysis and GW, H- AS and S-AA were responsible for
9 drafting, literature review and scientific approach of the write-up.
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11 REFERENCES:

- 13 1. Borg MG. The extent and nature of bullying among primary and secondary
14 schoolchildren. *Educ Res* 1999; 41:137-53.
- 16 2. Richman JA, Rospenda KM, Nawyn SJ, F et al. Sexual harassment and
17 generalized workplace abuse among university employees: Prevalence and mental
18 health correlates. *Am J Public Health* 1999; 89:358-63.
- 19 3. Maida AM, Vasquez A, Herskovic V, et al. A report on student abuse during
20 medical training. *Med Teach* 2003; 25:497-501.
- 22 4. White GE: Sexual harassment during medical training: the perceptions of medical
23 students at a university medical school in Australia. *Med Educ* 2000; 34:980-86.
- 25 5. Coverdale JH, Balon R, Roberts LW. Mistreatment of trainees: verbal abuse and
26 other bullying behaviors. *Acad Psychiatry* 2009; 33:269-73.
- 28 6. Daugherty SR, Baldwin DC Jr, Rowley BD. Learning, satisfaction, and
29 mistreatment during medical internship: a national survey of working conditions.
30 *JAMA* 1998; 279:1194-9.
- 32 7. Quine L. Workplace bullying in junior doctors: questionnaire survey. *BMJ* 2002;
33 324:878-9.
- 35 8. Askew DA, Schluter PJ, Dick ML, et al. Bullying in the Australian medical
36 workforce: cross-sectional data from an Australian e-Cohort study. *Aust Health*
37 *Rev* 2012; 36:197-204.
- 39 9. Scott J, Blanshard C, Child S. Workplace bullying of junior doctors: cross-
40 sectional questionnaire survey. *N Z Med J* 2008 Sep 22; 121:10-4.
- 42 10. Finucane P, O'Dowd T. Working and training as an intern: a national survey of
43 Irish interns. *Med Teach* 2005; 27:107-13.
- 45 11. Mejía R, Diego A, Alemán M, et al. Perception of mistreatment during medical
46 residency training. *Medicina (B Aires)* 2005; 65: 295-301.
- 48 12. Nagata-Kobayashi S, Maeno T, Yoshizu M, et al. Universal problems during
49 residency: abuse and harassment. *Med Educ* 2009; 43:628-36.
- 51 13. Nagata-Kobayashi S, Sekimoto M, Koyama H, et al. Medical student abuse
52 during clinical clerkships in Japan. *J Gen Intern Med* 2006; 21:212-8
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60
14. Yildirim D, Yildirim A, Timucin A. Mobbing behaviors encountered by nurse teaching staff. *Nurs Ethics* 2007; 14:447-63.
15. Bairy KL, Thirumalaikolundusubramanian P, Sivagnanam G, et al. Bullying among trainee doctors in Southern India: a questionnaire study. *J Postgrad Med* 2007; 53:87-90.
16. Imran N, Jawaid M, Haider II, et al. Bullying of junior doctors in Pakistan: a cross-sectional survey. *Singapore Med J* 2010; 51: 592-95.
17. Ahmer S, Yousafzai AW, Siddiqi M, et al. Bullying of trainee psychiatrists in Pakistan: a cross-sectional questionnaire survey. *Acad Psychiatry* 2009; 33:335-39.
18. Dyrbye LN, Harper W, Moutier C, Durning SJ, Power DV, Massie F, et al. A multi-institutional study exploring the impact of positive mental health on medical students' professionalism in an era of high burnout. *Acad Med* 2012; 87: 1024-1031.
19. Schuchert MK. The relationship between verbal abuse of medical students and their confidence in their clinical abilities. *Acad Med* 1998; 73: 907-9.
20. Dyrbye LN, Thomas MR, Massie FS, Power DV, Eacker A, Harper W, Durning S, Shanafelt TD. Burnout and suicidal ideation among U.S. medical students. *Annals of Internal Medicine* 2008; 149: 334-341.
21. Bhan, A. Substance abuse among medical professionals: A way of coping with job dissatisfaction and adverse work environments. *Indian J Med Sci* 2009; 63: 308-309.
22. Dyrbye LN, Thomas MR, Shanafelt TD. Medical student distress: causes, consequences, and proposed solutions. *Mayo Clin Proc* 2005; 80:1613-22.
23. Sheehan KH, Sheehan DV, White K, et al A pilot study of medical student 'abuse'. Student perceptions of mistreatment and misconduct in medical school. *JAMA* 1990; 263:533-37.
24. Aasland OG, Hem E, Haldorsen T, et al. Mortality among Norwegian doctors 1960-2000. *BMC Public Health* 2011; 11:173.
25. Petersen MR, Burnett CA. The suicide mortality of working physicians and dentists. *Occup Med (Lond)* 2008; 58: 25-29.

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- ~~23-26.~~ Tartas M, Walkiewicz M, Majkovicz M, et al. Psychological factors determining success in a medical career: a 10-year longitudinal study. *Med Teach* 2011; 33: e163-72.
- ~~2327.~~ Miedema B, MacIntyre L, Tatemichi S, et al. How the medical culture contributes to coworker-perpetrated harassment and abuse of family physicians. *Ann Fam Med* 2012; 10: 111-17.
- ~~2528.~~ Al-Adawi S, Al-Bahlani S Domestic violence: "What's love got to do with it?". *Sultan Qaboos Univ Med J*. 2007; 7: 5-14.
- ~~29.~~ Ahmed I, Banu H, Al-Fageer R, et al. Cognitive emotions: Depression and anxiety in medical students and staff. *J Crit Care* 2009; 24:e1-7.
- ~~2630.~~ Al-Saleh SA, Al-Madi EM, Al-Angari NS, et al. Survey of perceived stress-inducing problems among dental students, Saudi Arabia. *Saudi Dent J* 2010; 22:83-8.
- ~~27-31.~~ Al-Dabal BK, Koura MR, Rasheed P, et al. A comparative study of perceived stress among female medical and non-medical university students in Dammam, Saudi Arabia. *Sultan Qaboos Univ Med*. 2010; 10:231-40.
- ~~2832.~~ Al-Busaidi Z, Bhargava K, Al-Ismaily A, et al. Prevalence of Depressive Symptoms among University Students in Oman. *Oman Med J* 2011; 26:235-39.
- ~~2933.~~ Al-Adawi SS. Re: Comparative study of Perceived Stress among Female Medical and Non-Medical University Students in Dammam, Saudi Arabia. *Sultan Qaboos Univ Med J* 2010; 10:410-11.
- ~~30-34.~~ Baldwin DC Jr, Daugherty SR, Eckenfels EJ: Student perceptions of mistreatment and harassment during medical school: a survey of ten United States schools. *West J Med* 1991, 155:140-145.
- ~~35.~~ Uhari M, Kokkonen J, Nuutinen M, Vainionpää L, Rantala H, Lautala P, Väyrynen M: Medical student abuse: An international phenomenon. *JAMA* 1994, 271:1049-1051.
- ~~36.~~ Einarsen S, Raknes BI: Harassment in the workplace and the victimization of men. *Violence Vict* 1997; 12:247-63.
- ~~37-31.~~ Richman JA, Flaherty JA, Rospenda KM, et al. Mental health consequences and correlates of reported medical student abuse. *JAMA* 1992; 267(5): 692-4.
- ~~32.~~ Al-Barwani TA, Albeelyb TS. The Omani Family: Strengths and Challenges. *Marriage & Family Review* 2007;41:119-42.

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33. ~~Al-Adawi S. Adolescence in Oman. In Jeffrey Jensen Arnett, Editor. *International Encyclopedia of Adolescence: A Historical and Cultural Survey of Young People around the World* (2 Volume Set). New York: Routledge, 2006; pp. 713-28.~~
3438. Eloul L, Ambusaidi A, Al-Adawi S. Silent Epidemic of Depression in Women in the Middle East and North Africa Region: Emerging tribulation or fallacy? *Sultan Qaboos Univ Med J* 2009; 9: 5-15.
3539. Nora LM, McLaughlin MA, Fosson SE, et al. Gender discrimination and sexual harassment in medical education: perspectives gained by a 14-school study. *Acad Med* 2002; 77:1226-34.
3640. Larsson C, Hensing G, Allbeck P. Sexual and gender-related harassment in medical education and research training: results from a Swedish survey. *Med Educ* 2003, 37:39-50.
- ~~4137. Larkin GL, Mello MJ. Commentary: doctors without boundaries: the ethics of teacher-student relationships in academic medicine. *Acad Med* 2010; 85:752-55.~~
38. Hinze SW. 'Am I being over-sensitive?' Women's experience of sexual harassment during medical training. *Health (London)* 2004; 8:101-27.
39. ~~42. Madhiwalla N, Roy N. Assaults on public hospital staff by patients and their relatives: an inquiry. *Indian J Med Ethics* 2006, 3: 51-54.~~
43. Moscarello R, Margittai KJ, Rossi M. Differences in abuse reported by female and male Canadian medical students. *Can Med Assoc J* 1994; 150: 357-63.
4044. Cook DJ, Liutkus JF, Risdon CL, et al. Residents' experiences of abuse, discrimination and sexual harassment during residency training. McMaster University Residency Training Programs. *Can Med Assoc J* 1996; 154:1657-65.
- ~~41-45. Mezulis AH, Abramson LY, Hyde JS, Hankin BL. Is there a universal positivity bias in attributions? A meta-analytic review of individual, developmental, and cultural differences in the self-serving attributional bias. *Psychol Bull* 2004; 130:711-47.~~
46. Coughlin SS. Recall bias in epidemiologic studies. *J Clin Epidemiol* 1990; 43:87-91.
4247. Dwairy M, Van Sickle T.D. Western psychotherapy in traditional Arabic societies. *Clin Psychol Rev.* 1996; 16: 231-49.

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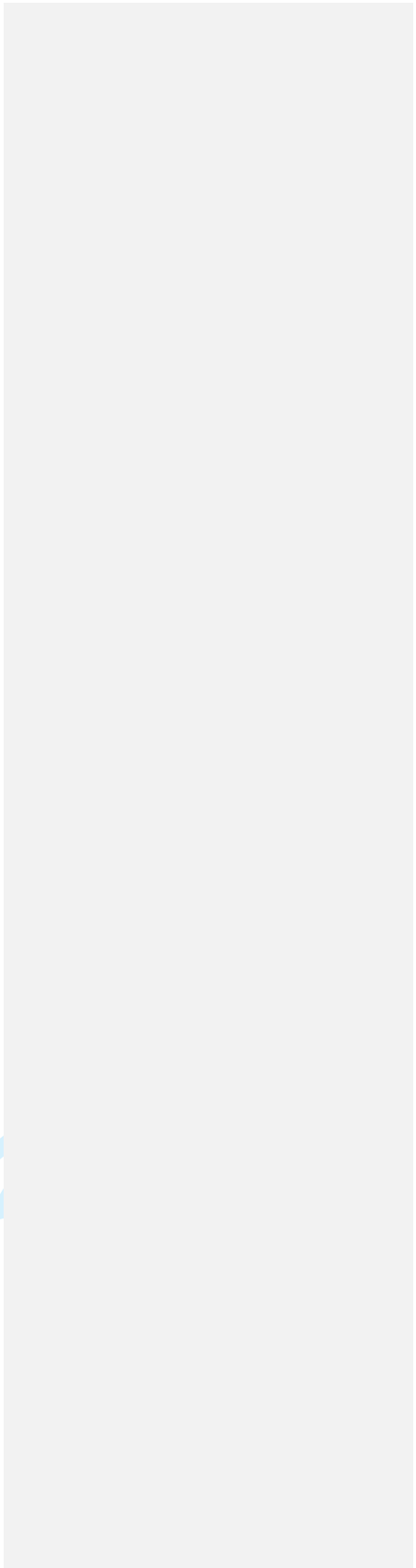
For peer review only

48. [Al-Adawi S, Al-Busaidi Z, Al-Adawi SS, Burke DT. Families Coping With Disability Due to Brain Injury in Oman: Attribution to Belief in Spirit Infestation and Ensorcellment. SAGE Open July-September 2012: 1-8 DOI: 10.1177/2158244012457400.](#)

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Table 1: Medical trainee reporting different types of mistreatment according to sex

	♂+♀ (N=58)	♂ (N=28)	♀ (N=30)
VERBAL ABUSE			
Shouted at you	29 (50%)	14 (50%)	15 (50%)
Belittled or humiliated you during meetings or rounds	32 (55.2%)	17 (60.7%)	15 (50%)
Spoken to you un-respectfully	27 (46.6%)	13 (46.4%)	14 (46.7%)
PHYSICAL ABUSE OR THREATS			
Threatened you with physical harms	7 (12.1%)	3 (10.7%)	4 (13.3%)
ACADEMIC ABUSE			
You were asked to carry out some personal services unrelated to patient care or educational activities	17 (29.3%)	10 (35.7%)	7 (23.3%)
Your questions/queries were intentionally not answered	17 (29.3%)	11 (39.3%)	6 (20.0%)
You were forced to refer patient without providing reasonable cause for referral	30 (51.7%)	15 (53.6%)	15 (50%)
You were ask to take consent from very complicated cases	27(46.6%)	16 (57.1%)	11 (36.7%)
You were threatened with failure or giving poor evaluations for reasons unrelated to your academic performance	15(25.9%)	11 (39.3%)	4 (13.3%)
SEXUAL HARASSMENT			
Received jokes or comments against your gender (M/F)	9 (15.5%)	5 (17.9%)	4 (13.3%)
Received compliments or comments about your body or figure	7 (12.1%)	2 (7.1%)	5 (16.7%)
Faced with an offensive body language (e.g. repeated leering, standing too close)	7 (12.1%)	1 (3.6%)	6 (20.0%)

♂= Male
♀= Female

Table 2: Medical trainees reporting different types of mistreatments according to sources/perpetrators

	Verbal Abuse			Physical Abuse			Academic Abuse			Sexual harassment		
	♂	♀	Total	♂	♀	Total	♂	♀	Total	♂	♀	Total
Consultants	21 (75%)	17 (56.7%)	38 (65.5%)	4 (14.3%)	3 (10%)	7 (12.1%)	18 (64.3%)	11 (36.7%)	29 (50%)	4 (14.3%)	5 (16.7%)	9 (15.5%)
Specialists	9 (32.1%)	10 (33.3%)	19 (32.8%)	1 (3.6%)	2 (6.7%)	3 (5.2%)	16 (57.1%)	14(46.7%)	30 (51.7%)	4 (14.3%)	6 (20%)	10 (17.2%)
Resident	4 (14.3%)	1 (3.3%)	5 (8.6%)	0	0	0	3 (10.7%)	4 (13.3%)	7 (12.1%)	2 (7.1%)	1(3.3%)	3 (5.2%)
Nurses	6 (21.4%)	12(40%)	18 (31%)	1 (3.6%)	4(13.3%)	5 (8.6%)	7 (25%)	7 (23.3%)	14 (24.1%)	2 (7.1%)	0	2 (3.4%)
Patients/ Relative	5 (17.9%)	7(23.3%)	12 (20.7%)	1 (3.6%)	2(6.7%)	3 (5.2%)	2 (7.1%)	2 (6.7%)	4 (6.9%)	1 (3.6%)	1 (3.3%)	2 (3.4%)
Others	1 (3.6%)	2(6.7%)	3 (5.2%)	0	0	0	1 (3.6%)	0	1 (1.7%)	0	0	0

♂ = Male

♀ = Female

Table 3: Medical Trainee Reporting Mistreatment according to Specialty

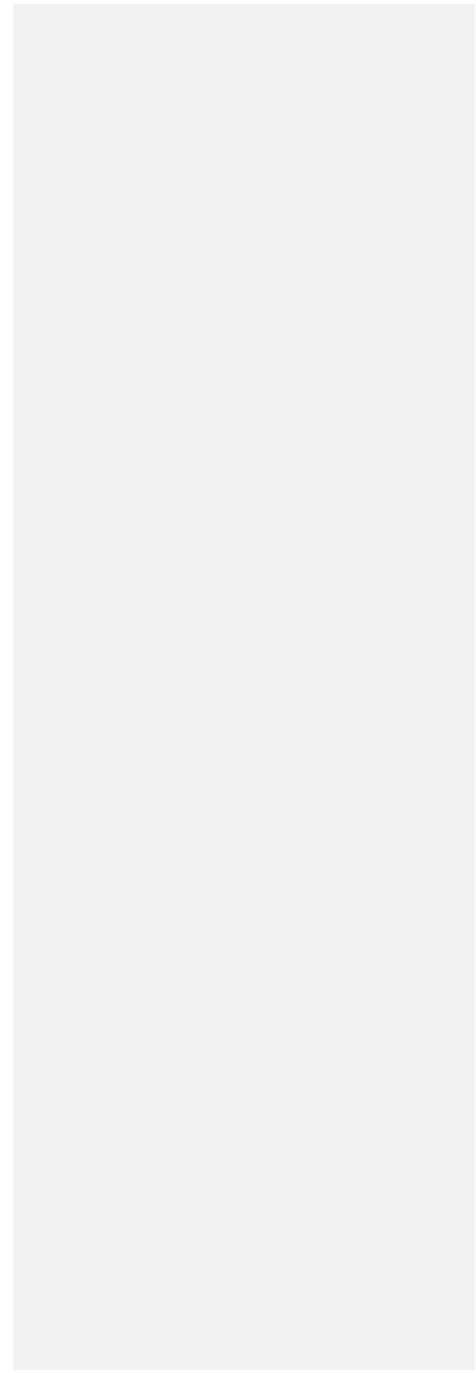
	ALL (n=58)	MEDICINE	SURGERY	PEDIATRICS
VERBAL ABUSE		32(55.2%)	17(29.3%)	15(25.9%)
Shouted at you	29 (50%)	20(62.5%)	11(64.7%)	9(60%)
Belittled or humiliated you during meetings or rounds	32 (55.2%)	21(65.6%)	10(58.8%)	13(86.7%)
Spoke to you un-respectfully	27 (46.6%)	18(56.2%)	8(47.1%)	11(73.3%)
PHYSICAL ABUSE OR THREATS		11(19%)	1(1.7%)	3(5.2%)
Threatened you with physical harms	7 (12.1%)	11(100%)	1 (100%)	3 (100%)
ACADEMIC ABUSE		35(60.3%)	17(29%)	9(15.5%)
You were asked to carry out some personal services unrelated to patient care or educational activities	17 (29.3%)	13(37.1%)	7(41.2%)	5(55.6%)
Your questions/queries were intentionally not answered	17 (29.3%)	10(28.6%)	9(52.9%)	3(33.3%)
You were forced to refer patient without providing reasonable cause for referral	30 (51.7%)	21(60%)	11(64.7%)	5(55.6%)
You were ask to take consent from very complicated cases	27(46.6%)	20(57.1%)	10(58.8%)	4(44.4%)
You were threatened with failure or giving poor evaluations for reasons unrelated to your academic performance	15(25.9%)	10(28.6%)	4(23.5%)	5(55.6%)
SEXUAL HARASSMENT		10(17.2%)	7(12.1%)	4(6.9%)
Received jokes or comments against your gender (M/F)	9 (15.5%)	5(50%)	5(71.4%)	2(50%)
Received compliments or comments about your body or figure	7 (12.1%)	4(40%)	3(42.9%)	1(25%)
Faced with an offensive body language (e.g. repeated leering, standing too close)	7 (12.1%)	6(60%)	1(14.3%)	2(50%)

Table 4: Medical trainees' narrative for either reporting reason or not reporting maltreatment

Reason/s for not reporting such abuse	%
1. I did not recognize the experience as an abuse at the time that it happened	N=19/58 (32.8%)
2. It was not significant to be reported to those in authority	N=19/58 (32.8%)
3. Reporting such abuse or mistreatment would not accomplish anything	N=24/58 (41.4%)
4. Reporting such mistreatment or abuse would become more troublesome than it was worth	N=25/58 (43.1%)
5. I dealt with the problem directly myself	N=13/58 (22.4%)
6. I did not know to whom I should report or how to complain	N=10/58 (17.2%)
7. I was afraid that reporting such abuse would adversely affect my evaluation or my professional career in future	N=24/58 (41.4%)
8. The abuser apologized to me	N=7/58 (12.1%)
9. I was afraid of not being believed or the problem would not be dealt fairly	N=8/58 (13.8%)
10. I was afraid that the reporting would not be kept confidential	N=17/58 (29.3%)

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Reviewer	Reviewer' comments	Authors' response
Kal Winston	The term 'explore experiences' is mentioned in the research question. From the tables, it appears participants simply responded to very few pre-defined categories. Individuals typically interpret these types of statements differently. Nowhere is it explained what these categories consist of.	The statement 'explore experiences' has been revised. Also, now it is mentioned in the text that the study employed quantitative approach via The Likert-type questionnaire
	It would have been really good to have included some interviews or focus groups so that the participants' interpretations really could be explored. The lack of qualitative data in a phenomenological study of perceived experience should be cited as a major limitation. If you choose not to include any qualitative data from interviews or focus groups, then you should state this as a major limitation of a study which is designed to explore participants experiences.	We thank Prof Winston for raising this important omission. This issue has now being recapitulated as one of major limitation of this study.
	Use of SPSS for statistics is mentioned, but the tables only include simple counts and percentages. I think this is fine, but the methods section should be clearer about this.	The text has been revised.
	There are very minor errors of English, mostly of prepositions and pronouns, sprinkled throughout.	Attempt was made by a native speaker to polish the English expression and grammar.

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	The terms 'verbal abuse', 'physical abuse or threats', 'academic abuse' and 'sexual harassment' all appear to be undefined.	We are grateful to Prof. Winston for raising this issue. These terms have now been operationalized in the text, plus Table 1. Please see description under the title Assessment Measures
David Power MB MPH	I consider this an important pilot study, especially if this truly is the first report of abuse amongst interns in Oman. That being said, while in many parts of the paper the English is very readable there are other parts of the paper - the abstract - where the English is not at a level yet for publication. For example the phrase 'across the border' is used when I believe the intent is to communicate 'across the board', There are other similar examples so I think the language does need to be re-worked before publication.	The suggested changes have been taken onboard. Also, as alluded above, attempts were made to improve the English expression and grammar.
	Again, I consider this a pilot study. I recommend re-working this paper to present it as a pilot study suggesting the need to explore this issue further. There are more sophisticated measures than those used by Sheehan (ref#20) in 1990. I am personally involved with several publications by Dyrbye et al where validated measures are	We are grateful of the Prof Power's suggestion that this paper should be considered as pilot. On this ground, the title has been duly changed as "Pilot study on the prevalence of abuse and mistreatment during clinical internship: a cross-sectional

	<p>consistently used and referenced. Nonetheless, as a pilot study, the results of this survey are alarming and need to be presented in the literature. I do believe that a more comprehensive survey should be planned by the authors, including surveying about mental health attributes - such as depression and burnout - of the respondents.</p>	<p>study among first year residents in Oman". We will also consider conducting another study with more robust methodological sophistication. The idea to also to explore possible sequel mental health of maltreatment in future studies have been noted with deep appreciation.</p>
	<p>The discussion is much too lengthy and includes too much conjecture. In my opinion, the main conclusion is that there is a serious problem that needs further investigation and attention. The discussion will need to be limited because these are preliminary findings - so this should be much shorter.</p>	<p>We thank the esteemed Professor for this recommendation. We fully agree with his suggestion and therefore the text has been drastically reduced.</p>
	<p>I believe this is important, sentinel pilot research that should be published. I've mentioned some concerns above that need to be addressed. I am fascinated that some interns reported physical abuse or threats of physical abuse. Given that this is a rare observation in the Western literature, I would love more information on this - did anyone actually experience physical abuse such as slapping or pushing? Clearly unacceptable and grounds for legal action in many countries.</p>	<p>This issue has been made more explicit in the text.</p>
	<p>I do believe this needs to be published - and wonder indeed if the authors risk any</p>	<p>We thank Prof Power for this enthusiasm and encouragement.</p>

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	negative consequences by proceeding to publication. I applaud them indeed for casting light on these staggering figures for abuse in this Arab country.	

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Pilot study on the prevalence of abuse and mistreatment during clinical internship: a cross-sectional study among first year residents in Oman

Journal:	<i>BMJ Open</i>
Manuscript ID:	bmjopen-2012-002076.R2
Article Type:	Research
Date Submitted by the Author:	28-Nov-2012
Complete List of Authors:	Al-Shafee, Mohammed; Sultan Qaboos University, Family Medicine and Public Health Al-Kaabi, Yousuf; Sultan Qaboos University, College of Medicine & Health Sciences, Department of Family Medicine and Public Health Al-Farsi, Yousuf; Sultan Qaboos University, College of Medicine & Health Sciences, Department of Family Medicine and Public Health White, Gillian; Ministry of Health, Directorate of Education and Training Al-Maniri, Abdullah; Sultan Qaboos University, Family Medicine and Public Health Al-Sinawi, Hamedi; Sultan Qaboos University, Department of Behavioural Medicine Al-Adawi, Samir; Sultan Qaboos University, Department of Behavioral Medicine
Primary Subject Heading:	Medical education and training
Secondary Subject Heading:	Medical education and training
Keywords:	EDUCATION & TRAINING (see Medical Education & Training), OCCUPATIONAL & INDUSTRIAL MEDICINE, MENTAL HEALTH

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5 **Pilot study on the prevalence of abuse and mistreatment**
6 **during clinical internship: a cross-sectional study among first**
7 **year residents in Oman**
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14 **Mohammed Al-Shafee¹, Yousuf Al-Kaabi¹, Yousuf Al-Farsi¹, Gillian White²,**
15 **Abdullah Al-Maniri¹, Hamed Al-Sinawi² and Samir Al-Adawi²**
16
17

18
19
20 ¹ Department of Family Medicine and Public Health, College of Medicine and Health
21 Sciences, Sultan Qaboos University, Muscat, Oman
22

23 ² Directorate of Education and Training, Ministry of Health, Oman
24

25 ³ Department of Behavioral Medicine, College of Medicine and Health Sciences, Sultan
26 Qaboos University, Muscat, Oman
27
28

29
30 **Correspondence to:**

31 Dr. Samir Al-Adawi,
32 Department of Behavioral Medicine,
33 College of Medicine and Health Sciences,
34 Sultan Qaboos University, P.O. Box 35,
35 Al-Khoudh 123, Muscat,
36 Sultanate of Oman
37

38
39 Telefax: + 968 24545203
40 Telephone: + 968 24141139
41 E-mail: adawi@squ.edu.om;
42 jimbo@omantel.net.om
43 samir-al-adawi@fulbrightmail.org
44

45 Abdullah Al-Maniri (almaniri@gmail.com)
46 Gillian White (drgillianwhite@yahoo.co.nz)
47 Hamed Al-Sinawi [hamad.senawi@gmail.com]
48 Mohammed Al-Shafee (shafae4@omantel.net.om)
49 Samir Al-Adawi (samir-al-adawi@fulbrightmail.org)
50 Yousuf Al-Farsi (dr.yousufalkaabi@gmail.com)
51 Yousuf Al-Kaabi (dryousufalfarsi@gmail.com)
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ABSTRACT

Objective: To evaluate perceptions of being mistreated during internship among first year Oman Medical Specialty Board residents.

Design: A cross-sectional study

Setting: Training centers for Oman Medical Specialty Board

Participants: First year medical residents following completion of internship. During the study period 2009 – 2010

Method: A cross-sectional survey of 69 first year Medical residents

Results: Of 58 residents (response rate 84%) around 96.6% believed that mistreatment exists. Among different types of mistreatment, verbal and academic abuse was the most commonly reported (87.9%), followed by sexual harassment (24.1%), then physical abuse (22.4%). Forty-four (75.9%) residents had advised at least one of their relatives not to join medical school.

Conclusion: Mistreatment of medical interns is an ethical issue challenging the quality of clinical training. Further research is needed to understand factors influencing mistreatment and draw guidelines to limit such problems.

Key Words: Intern, internship mistreatment, verbal abuse, physical abuse, academic abuse, sexual harassment, Oman.

ARTICLE FOCUS

To understand factors influencing mistreatment and to draw guidelines to limit such problems

Report the experiences of mistreatment among medical trainees in Oman, an Arab/Islamic country.

KEY MESSAGES

The data suggests bullying behavior is rampant among medical trainees in Oman.

STRENGTHS AND LIMITATIONS OF THIS STUDY

Bullying behaviors have been reported in different occupational settings including the medical profession. There is dearth of study from Arab/Islamic countries.

To our knowledge, this is the first study on this endeavor from this part of the world.

This study is limited with small sample size and its cross-sectional study methodology.

INTRODUCTION:

Forms of abuse and other bullying behaviors have been reported in various occupational settings.¹⁻⁴ Studies carried out in different parts of the world suggest that medical professionals are no exception to maltreatment within institutional settings. Among various medical professionals who have reported abuse, those who are in the early phase of their careers, like interns, are the most vulnerable. According to Coverdale, Balon & Roberts the most common degrading experiences among interns include “threats, intimidation, humiliation, excessive criticism, covert innuendo, exclusion or denial of access to opportunity, undue additions to work requirements, and shifting of responsibilities without appropriate notice” (p.269).⁵

Studies have quantified mistreatment among medical trainees or those who are on the lower ladder of a medical career. Steven et al.⁶ reported in a national survey in the USA that about 93% of medical trainees endorsed the view that they have had at least one experience of mistreatment. Another survey undertaken in the UK⁷, reported that around 84% of medical trainees have been bullied and about 69% had witnessed bullying and harassment during their clinical placements. Other studies from societies that are similar to Western Europe, North American and Asia Pacific regions have also found evidence of maltreatment including Australia^{4, 8}, New Zealand⁹, Ireland¹⁰, Argentina¹¹ and Japan.¹²⁻¹³

Maltreatment of medical trainees is not limited to Western countries.¹⁴⁻¹⁶ Ahmer et al.¹⁷ have reported pervasive and persistent tendencies for medical trainees in Pakistan to be subjected to ‘disrespectful interactions’, ‘belittlement’, ‘undermining’ and ‘humiliation’. Drawing from available literature, Coverdale, Balon & Roberts⁵ have categorized common forms of maltreatment directed towards medical trainees as verbal abuse or humiliation, nonsexual harassment, sexual harassment and forms of prejudice against sexual orientation and ethnicity.

There is a myriad of adverse impacts of mistreatment that can emerge as a result of trainees being subjected to maltreatment.^{18, 19} Schubert et al.²⁰ have shown a significant relationship between verbal abuse during medical training and lower levels of confidence, regardless of sex, race, age or levels of ability and temperament. Richman et al.² studied mental health consequences among trainees who were subjected to maltreatment with

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disconcerting findings. There appeared to be tendencies for maltreated trainees to have 'psychopathological outcomes' in the form of unrelenting affective emotions, resorting to 'self-medication' and even dependency on mind altering substances.^{21,22} This is consonant with well known observations that there are high levels of stress and psychological distress among medical trainees.^{23,24} Such prevailing situations have been suggested to play a role in the observed higher rate of suicide among physicians compared to the general population.^{25,26} There is indication that medical trainees who were most distressed at the beginning of their training, and were likely to report more stress and distress in the subsequent course of their lives.²⁷ According to Miedema et al.²⁸, there are inbuilt mechanisms that perpetuate abusive behavior in the medical culture, including working in what is perceived as a stressful environment. This is suggestion that 'abuse begets abuse'²⁹, a view that might imply the presence of a cycle of bullying in medical profession.

In the Arab world, evidence abounds that much emotional distress is present among medical trainees³⁰⁻³² including Oman.³³ Although these Arabian studies should be enlightening, most of them are rife with conceptual limitations. Many of them have utilized assessment measures without local validity and therefore these studies fall into the 'category of fallacy'.³⁴ These studies could also be criticized on the ground that their target population was pre-clinical students. Therefore generalizations cannot be applied to interns. Internship, in parlance of the medical profession, is the period in which new medical graduates learn medical practices in a hospital under supervision, prior to beginning his or her specialization. In Oman, internship consists of three to four month rotations, in which each intern (resident) is rotated through general medicine, general surgery and either pediatrics or obstetrics and gynecology. Following internship in Oman, further medical training is conducted under the auspices of Oman Medical Specialty Board (<http://www.omsb.org>), a governmental body that is responsible for postgraduate clinical training. An integral part of its function is to oversee the wellbeing of trainees, through services that include a specialized office and designated person to which trainees can submit any grievance.

With evidence of adverse experiences among medical trainees in other parts of the world and the fact that no data has been forthcoming from Oman, the present study

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3 aimed to quantify mistreatment or abuse among Omani medical interns. Interrelated aims
4 were to explore the level of mistreatment among medical trainees according to gender,
5 perpetrator, and specialty, as well as gauge to the reasons for not reporting maltreatment,
6 to the concerned authority.
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10 11 12 **METHODS AND MATERIALS:**

13 14 **Study Population**

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16 The study was carried out among first year medical residents following
17 completion of internship. During the study period 2009 – 2010 a total of 69 medical
18 residents were invited to participate in this study. The residents were approached to
19 participate in this study during a research workshop conducted in May 2010. Each
20 participant was asked to fill in a questionnaire about their experience and perceptions of
21 mistreatment and abuse with reference to their internship. **In the cover letter with the**
22 **survey, it was indicated to the participants that this was anonymous survey and their**
23 **participation was entirely voluntary and data gathered would be kept confidential and**
24 **they may withdraw any from the study, without prejudice at any time. In case the**
25 **participants incur any undue distress while contemplating on the items of the**
26 **questionnaire, mental health support will be duly provided. The participants were asked**
27 **not to discuss the questionnaire among themselves in order to avoid peer influence.**
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39 40 **ASSESSMENT MEASURES**

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42 The Likert-type questionnaire was adapted from those developed by Sheehan et
43 al.²⁴ Baldwin et al.³⁵ and Uhari et al.³⁶ and focused on indexing ‘verbal abuse’, ‘physical
44 abuse or threats’, ‘academic abuse’ and ‘sexual harassment’ (Table 1). *Physical Abuse* is
45 defined as threat that, if executed, would likely cause physical harm. Other forms of
46 physical abuse, such as, slapping, pushing, hitting, kicking or having objects thrown at
47 the interns are an integral part of the present definition of physical abuse. Physical
48 abuse also entails being placed at unnecessary medical risk. *Academic Abuse* is defined
49 as coercion to carry out some personal services unrelated to the expected role of interns.
50 The concept of academic abuse also encapsulates instances in which interns being
51 excluded from otherwise reasonable learning opportunities offered to others, or are
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3 threatened with failure or poor evaluations for reasons unrelated to one's academic
4 performance. *Sexual Harassment* is defined in the following terms: being subjected to
5 jokes or comments against one's gender or body figure. Sexual harassment entails being
6 subjected to repeated leering or offered unwanted gifts. Being offered private sessions or
7 better grades in exchange for an extra-marital affair as well as inappropriate touching of a
8 sexual nature constitute examples of sexual harassment.

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14 Various socio-demographic information (e.g. age, sex, year of residency, marital
15 status and current specialty) was also sought from the consenting participants. The
16 participants were also given the option to use free text to describe reasons for reporting or
17 not reporting maltreatment.
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22 The questionnaire was delivered to each participant in a closed envelope, which
23 also contained a description of the study, along with a statement of confidentiality so that
24 informed consent could be obtained. To assure anonymity, participants were explicitly
25 informed not to make any reference to their identity on the questionnaire.
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28 ANALYSIS

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30 Both descriptive statistics as raw counts and percentage are presented. The free
31 narrative was assessed using thematic analysis.
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34 The study was approved by the local institutional review board (IRB), and the
35 Research and Ethics Committee of College of Medicine and Health Sciences, Sultan
36 Qaboos University (MREC#382)
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38 RESULTS

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40 The results are presented first as simple demographics of the sample and then in
41 relation to the aims of the study. The response rate was 84.2% (58/69 residents) of which
42 30 (51.7%) were female and 28 (48.3%) were male. Their ages ranged from 25 to 35
43 years (mean of 27.83 yrs and standard deviation of 1.63 yrs).
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47 Experience of Mistreatment according to Gender

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49 Table 1 shows perceived maltreatment according to gender. Out of total 12 items
50 eliciting maltreatment, males dominated in 6 of them. However, no statistical differences
51 were found between genders on any one item. When each form of maltreatment was
52 collapsed into 'verbal abuse', 'physical abuse or threats', 'academic abuse', and 'sexual
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3 harassment', the only category of statistical significance at the 95% confidence level was
4 'academic abuse' where the males reported higher levels of mistreatment ($p \leq 0.004$).
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7 **Experience of Mistreatment according to Perpetrator**

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9 As shown in Table 2, Consultants outshone others in perpetuating verbal abuse
10 and physical abuse. They were also more likely to be guilty of academic abuse toward the
11 male residents ($p = 0.03$). Consultants and Specialists together were implicated in
12 academic abuse and sexual harassment more than other groups that the residents
13 encountered.
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16 **Experience of Mistreatment according to Specialty**

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18 Three specialties (medicine, surgery, pediatrics) were scrutinized for variations in
19 dispensing maltreatment to the residents. As shown in Table 3, the data can be
20 extrapolated in three ways. Firstly, all indices of maltreatment were significantly higher
21 during medical rotation than pediatrics or surgery ($p = 0.005$). Secondly, pediatrics was
22 second highest in dispensing maltreatment. Thirdly, verbal abuse was the highest type of
23 maltreatment reported (36.8%) closely followed by academic abuse (35%).
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30 **Reasons for not reporting Maltreatment**

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32 The major reason for not reporting maltreatment elicited from the free text
33 responses was to avoid further trouble, as the Residents believed that. "Reporting could
34 adversely affect evaluation and professional career." Such behavior, out of fear, could be
35 seen as secondary abuse. Some respondents did not know how to deal with the problem
36 or preferred to deal with the maltreatment themselves as they "did not know whom to
37 report to or how to make the complaint." Seven respondents did not report the
38 maltreatment because the perpetrator had "apologized" to them. It was also not
39 uncommon to not recognize "the experience as abuse at the time it happened."
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47 **DISCUSSION**

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49 To our knowledge the present research is the first to describe four interrelated
50 patterns in relation to maltreatment from the experience of first year medical residents in
51 Arab countries: gender of the victim, types of maltreatment, specialty rotation where
52 maltreatment occurred, and reasons for not reporting maltreatment. Although the
53 intended population was small, the rate of response to the survey was high and the gender
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3 distribution of participants was fairly balanced. Most of the participants were undertaking
4 a medical specialty and were in their late twenties. Pending further scrutiny as this should
5 be viewed as a pilot study or sentinel. This survey indicates the rates of maltreatment to
6 be alarming in the presently observed cohort. On the whole, the present findings
7 substantiate the view that maltreatment is prevalent during medical training even in this
8 particular population.^{6, 7, 20, 37-38}
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14 One of the aims of this study was to examine whether there is a gender difference
15 in perceived maltreatment. Maltreatment and sexual abuse (that is abuse of a personal
16 nature) echo the global situation where such patterns are common among working
17 women³⁹ and nonetheless, female doctors.^{40, 41} The result of the present study suggests
18 there was no significant difference as per gender although young female doctors were
19 more likely to experience threats and sexual harassment. It is not clear why the present
20 cohort appears to ostensibly differ from trend commonly observed elsewhere. Some
21 speculations are therefore warranted. It is possible that gender segregation, a common
22 social prescription in the region, may have insidiously shielded female from being
23 subjected to maltreatment. In traditional Omani society, gender segregation has been
24 suggested to have been socio-culturally sanctioned in order to enhance female safety.⁴² It
25 is also possible that trajectory of modernity and empowerment may have also played
26 present observation. There is indication that recent affluence in Oman has narrowed
27 traditional the gender gap common in such patrilineal society. Drawing from data from
28 the Ministry of Health in Oman, Alshishtawy⁴³ has indicated that approximately 60% of
29 the workforce in Oman are females. Accordingly, "women outnumbered men in all
30 medical and health categories" and "feminisation" of the medical/health sciences
31 professions in Oman has reversed the male dominance of past years" [p.273]. Therefore,
32 preponderance of female in healthcare sectors in Oman might have played instrumental
33 role in moderating a stereotypical picture of senior male abusing junior female.
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49 The second interrelated aim of the present quest was to shed light on the
50 perpetrators of maltreatment. The present descriptive data unequivocally implicated those
51 in the top echelon, such as consultants and specialists, in perpetrating academic abuse and
52 sexual harassment. Studies elsewhere suggest that maltreatment often comes from
53 nonmedical staff, but according to Hinze⁴⁴ and Ahmer et al.¹⁷ senior medical staff were
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3 not innocent either. However, this preliminary study suggests that hierarchy is strongly
4 associated with propensity to dispense abuse. It is possible that such occurrences may
5 stem from cultural patterning. While social institution in Western Europe and North
6 American countries have explicitly made corporal punishment as retribution for an
7 academic misbehavior as unacceptable (a view is enshrined in legal and judicial system),
8 some reports have noted occurrence of aggressive act toward junior doctors.⁴⁵ It is
9 possible that senior members, the traditional teacher, or father-figure, demand filial
10 obedience from the students, in this case junior doctors. However, notwithstanding such a
11 view, it appears that maltreatment of novices in the medical profession exists in many
12 societies including those that do not prescribe to cultural patterning common in Oman.^{4, 46}
13 Therefore, factors within the medical culture itself need to be explored in order to devise
14 evidence-based interventions to mitigate senior members abusing the junior ones.
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Knowing which type of abuse comes from which source enable educators to focus their resources to prevent maltreatment. Cook, Liutkus and Risdon⁴⁷ have suggested that there is no ‘magic-bullet’ to mitigate the prevailing maltreatment of medical trainees. One possible venue is to institute mandatory courses for medical staff on awareness about the consequences of abuse and maltreatment. Medical schools and health care systems should have inbuilt mechanisms where victims of abuse can air their grievances confidentially without consequently jeopardizing their careers.

Some obvious caveats are imperative to mention. This data presents residents’ self-responses. Such method of eliciting information is likely to be rife with methodological deficit. Self-serving biases are well known in such studies.⁴⁸ It is also possible that recall bias could have contaminated their responses.⁴⁹ An integral part of recall bias, is that when individuals find certain events as emotional debilitating, the obvious recourse is to repress the memory of those events. Therefore, future studies should have an in-built mechanism to reduce the likelihood of recall bias. Secondly, some insidious cultural factors are likely to play factor in the present observation. The Omani culture is known to be a culture of honor and ‘shame’, which means that many of life’s maltreatments are likely to be ‘concealed’.⁵⁰ Despite the anonymous nature of the present study, it is possible that incidences of sexual harassment or maltreatment were likely to be ‘denied’ resulting in spurious data. Despite the above-mentioned caveats, interesting

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3 issues have emerged from the present study that needs to be followed up in a wider
4 context. Finally, the lack of qualitative data in a phenomenological study of perceived
5 experience is likely to represent a major limitation of this study in particular in a
6 population where such studies have not yet been forthcoming. Therefore, in studies
7 eliciting perceived experiences on cross-cultural samples, inclusion of qualitative
8 research methodology such as interviews are likely to yield more fruitful results.⁵⁰ Such
9 undertaking would have laid the groundwork for more meaningful quantitative research
10 instruments. Thereby, the present finding could be scrutinized with studies that have
11 included some interviews or focus groups so that the participants' interpretations could be
12 explored in depth.
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22 CONCLUSION

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24 Mistreatment of medical interns is emerging as a global challenge. To our
25 knowledge, this is the first study from the Arabian Gulf that explores maltreatment and
26 abuse in a medical setting. Fifty eight residents consented to participate in this present
27 anonymous survey which consisted of approximately 84% of the interns. In terms of
28 experience of mistreatment according to gender, males admitted to have experienced
29 higher levels of mistreatment. In terms of the perpetrator of harassment and abuse, it
30 appears that hierarchy counts. Those who were commanding higher positions were more
31 prone to fall foul to committing maltreatment and abuse. It also appeared that the
32 problems were more rampant in the subspecialists of medicine. Further research is
33 needed to understand factors influencing mistreatment and draw up guidelines to limit
34 such problems. However the findings should lead to the identification of factors
35 perpetuating maltreatment and abuse among medical trainee interns. Thus, evidence-
36 based interventions can be contemplated.
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57 **Competing interests:** None
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Participant consent: Obtained.

Ethics approval: Ethics approval was provided by the local institutional review board (IRB), Research and Ethics Committee of College of Medicine and Health Sciences, Sultan Qaboos University (MREC#382)

Conflicts of interest: none

Contributors

M-AS is responsible for study supervision, T-AK and Y-AF are responsible for study concept and design and data collection, A-AM is responsible for integrity of the data and the accuracy of the data analysis and GW, H- AS and S-AA were responsible for drafting, literature review and scientific approach of the write-up.

REFERENCES:

1. Borg MG. The extent and nature of bullying among primary and secondary schoolchildren. *Educ Res* 1999; 41:137-53.
2. Richman JA, Rospenda KM, Nawyn SJ, F et al. Sexual harassment and generalized workplace abuse among university employees: Prevalence and mental health correlates. *Am J Public Health* 1999; 89:358-63.
3. Maida AM, Vasquez A, Herskovic V, et al. A report on student abuse during medical training. *Med Teach* 2003; 25:497-501.
4. White GE: Sexual harassment during medical training: the perceptions of medical students at a university medical school in Australia. *Med Educ* 2000; 34:980-86.
5. Coverdale JH, Balon R, Roberts LW. Mistreatment of trainees: verbal abuse and other bullying behaviors. *Acad Psychiatry* 2009; 33:269-73.
6. Daugherty SR, Baldwin DC Jr, Rowley BD. Learning, satisfaction, and mistreatment during medical internship: a national survey of working conditions. *JAMA* 1998; 279:1194-9.
7. Quine L. Workplace bullying in junior doctors: questionnaire survey. *BMJ* 2002; 324:878-9.
8. Askew DA, Schluter PJ, Dick ML, et al. Bullying in the Australian medical workforce: cross-sectional data from an Australian e-Cohort study. *Aust Health Rev* 2012; 36:197-204.
9. Scott J, Blanshard C, Child S. Workplace bullying of junior doctors: cross-sectional questionnaire survey. *N Z Med J* 2008 Sep 22; 121:10-4.

10. Finucane P, O'Dowd T. Working and training as an intern: a national survey of Irish interns. *Med Teach* 2005; 27:107-13.
11. Mejía R, Diego A, Alemán M, et al. Perception of mistreatment during medical residency training. *Medicina (B Aires)* 2005; 65: 295-301.
12. Nagata-Kobayashi S, Maeno T, Yoshizu M, et al. Universal problems during residency: abuse and harassment. *Med Educ* 2009; 43:628-36.
13. Nagata-Kobayashi S, Sekimoto M, Koyama H, et al. Medical student abuse during clinical clerkships in Japan. *J Gen Intern Med* 2006; 21:212-8
14. Yildirim D, Yildirim A, Timucin A. Mobbing behaviors encountered by nurse teaching staff. *Nurs Ethics* 2007; 14:447-63.
15. Bairy KL, Thirumalaikolundusubramanian P, Sivagnanam G, et al. Bullying among trainee doctors in Southern India: a questionnaire study. *J Postgrad Med* 2007; 53:87-90.
16. Imran N, Jawaid M, Haider II, et al. Bullying of junior doctors in Pakistan: a cross-sectional survey. *Singapore Med J* 2010; 51: 592-95.
17. Ahmer S, Yousafzai AW, Siddiqi M, et al. Bullying of trainee psychiatrists in Pakistan: a cross-sectional questionnaire survey. *Acad Psychiatry* 2009; 33:335-39.
18. Dyrbye LN, Harper W, Moutier C, Durning SJ, Power DV, Massie F, et al. A multi-institutional study exploring the impact of positive mental health on medical students' professionalism in an era of high burnout. *Acad Med* 2012; 87: 1024-1031.
19. Dyrbye LN, Massie FS Jr, Eacker A, Harper W, Power DV, Durning S, Thomas MR, Moutier C, Satele D, Sloan JA, Shanafelt TD. 'Relationship between Burnout and Professional Conduct and Attitudes among US Medical Students'. *JAMA*, 2010; 304:1173-1180.
20. Schuchert MK. The relationship between verbal abuse of medical students and their confidence in their clinical abilities. *Acad Med* 1998; 73: 907-9.
21. Dyrbye LN, Thomas MR, Massie FS, Power DV, Eacker A, Harper W, Durning S, Shanafelt TD. Burnout and suicidal ideation among U.S. medical students. *Ann Intern Med* 2008; 149; 334-341.

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22. Bhan, A. Substance abuse among medical professionals: A way of coping with job dissatisfaction and adverse work environments. *Indian J Med Sci* 2009; 63: 308-309.
23. Dyrbye LN, Thomas MR, Shanafelt TD. Medical student distress: causes, consequences, and proposed solutions. *Mayo Clin Proc* 2005; 80:1613-22.
24. Sheehan KH, Sheehan DV, White K, et al A pilot study of medical student 'abuse'. Student perceptions of mistreatment and misconduct in medical school. *JAMA* 1990; 263:533-37.
25. Aasland OG, Hem E, Haldorsen T, et al. Mortality among Norwegian doctors 1960-2000. *BMC Public Health* 2011; 11:173.
26. Petersen MR, Burnett CA. The suicide mortality of working physicians and dentists. *Occup Med (Lond)* 2008; 58: 25-29.
27. Tartas M, Walkiewicz M, Majkiewicz M, et al. Psychological factors determining success in a medical career: a 10-year longitudinal study. *Med Teach* 2011; 33: e163-72.
28. Miedema B, MacIntyre L, Tatemichi S, et al. How the medical culture contributes to coworker-perpetrated harassment and abuse of family physicians. *Ann Fam Med* 2012; 10: 111-17.
29. Al-Adawi S, Al-Bahlani S Domestic violence: "What's love got to do with it?". *Sultan Qaboos Univ Med J*. 2007; 7: 5-14.
30. Ahmed I, Banu H, Al-Fageer R, et al. Cognitive emotions: Depression and anxiety in medical students and staff. *J Crit Care* 2009; 24:e1-7.
31. Al-Saleh SA, Al-Madi EM, Al-Angari NS, et al. Survey of perceived stress-inducing problems among dental students, Saudi Arabia. *Saudi Dent J* 2010; 22:83-8.
32. Al-Dabal BK, Koura MR, Rasheed P, et al. A comparative study of perceived stress among female medical and non-medical university students in Dammam, Saudi Arabia. *Sultan Qaboos Univ Med* 2010; 10:231-40.
33. Al-Busaidi Z, Bhargava K, Al-Ismaily A, et al. Prevalence of Depressive Symptoms among University Students in Oman. *Oman Med J* 2011; 26:235-39.
34. Al-Adawi SS. Re: Comparative study of Perceived Stress among Female Medical and Non-Medical University Students in Dammam, Saudi Arabia. *Sultan Qaboos Univ Med J* 2010; 10:410-11.

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35. Baldwin DC Jr, Daugherty SR, Eckenfels EJ: Student perceptions of mistreatment and harassment during medical school: a survey of ten United States schools. *West J Med* 1991, 155:140-145.
36. Uhari M, Kokkonen J, Nuutinen M, Vainionpää L, Rantala H, Lautala P, Väyrynen M: Medical student abuse: An international phenomenon. *JAMA* 1994, 271:1049-1051.
37. Einarsen S, Raknes BI: Harassment in the workplace and the victimization of men. *Violence Vict* 1997; 12:247-63.
38. Richman JA, Flaherty JA, Rospenda KM, et al. Mental health consequences and correlates of reported medical student abuse. *JAMA* 1992; 267: 692-4.
39. Eloul L, Ambusaidi A, Al-Adawi S. Silent Epidemic of Depression in Women in the Middle East and North Africa Region: Emerging tribulation or fallacy? *Sultan Qaboos Univ Med J* 2009; 9: 5-15.
40. Nora LM, McLaughlin MA, Fosson SE, et al. Gender discrimination and sexual harassment in medical education: perspectives gained by a 14-school study. *Acad Med* 2002; 77:1226-34.
41. Larsson C, Hensing G, Allbeck P: Sexual and gender-related harassment in medical education and research training: results from a Swedish survey. *Med Educ* 2003, 37:39-50.
42. Wikan U. *Behind the Veil in Arabia: Women in Oman*. Chicago: University of Chicago Press, 1991.
43. Alshishtawy M. Re: Afghanistan and Oman: Personal reflections on a profound contrast. *Sultan Qaboos Univ Med J* 2010; 10:272-275.
44. Hinze SW. 'Am I being over-sensitive?' Women's experience of sexual harassment during medical training. *Health (London)* 2004; 8:101-27.
45. Madhiwalla N, Roy N. Assaults on public hospital staff by patients and their relatives: an inquiry. *Indian J Med Ethics* 2006, 3; 51-54.
46. Moscarello R, Margittai KJ, Rossi M. Differences in abuse reported by female and male Canadian medical students. *Can Med Assoc J* 1994; 150: 357-63.
47. Cook DJ, Liutkus JF, Risdon CL, et al. Residents' experiences of abuse, discrimination and sexual harassment during residency training. *McMaster University Residency Training Programs*. *Can Med Assoc J* 1996; 154:1657-65.

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48. Mezulis AH, Abramson LY, Hyde JS, Hankin BL. Is there a universal positivity bias in attributions? A meta-analytic review of individual, developmental, and cultural differences in the self-serving attributional bias. *Psychol Bull* 2004; 130:711-47.
49. Coughlin SS. Recall bias in epidemiologic studies. *J Clin Epidemiol* 1990; 43:87-91.
50. Dwairy M, Van Sickle T.D. Western psychotherapy in traditional Arabic societies. *Clin Psychol Rev*. 1996; 16: 231-49.
51. Al-Adawi S, Al-Busaidi Z, Al-Adawi SS, Burke DT. Families Coping With Disability Due to Brain Injury in Oman: Attribution to Belief in Spirit Infestation and Ensorcellment. *SAGE Open* July-September 2012: 1-8 DOI: 10.1177/2158244012457400.

Table 1: Medical trainee reporting different types of mistreatment according to sex

	♂+♀ (N=58)	♂ (N=28)	♀ (N=30)
VERBAL ABUSE			
Shouted at you	29 (50%)	14 (50%)	15 (50%)
Belittled or humiliated you during meetings or rounds	32 (55.2%)	17 (60.7%)	15 (50%)
Spoken to you un-respectfully	27 (46.6%)	13 (46.4%)	14 (46.7%)
PHYSICAL ABUSE OR THREATS			
Threatened you with physical harms	7 (12.1%)	3 (10.7%)	4 (13.3%)
ACADEMIC ABUSE			
You were asked to carry out some personal services unrelated to patient care or educational activities	17 (29.3%)	10 (35.7%)	7 (23.3%)
Your questions/queries were intentionally not answered	17 (29.3%)	11 (39.3%)	6 (20.0%)
You were forced to refer patient without providing reasonable cause for referral	30 (51.7%)	15 (53.6%)	15 (50%)
You were asked to take consent from very complicated cases	27 (46.6%)	16 (57.1%)	11 (36.7%)
You were threatened with failure or giving poor evaluations for reasons unrelated to your academic performance	15 (25.9%)	11 (39.3%)	4 (13.3%)
SEXUAL HARASSMENT			
Received jokes or comments against your gender (M/F)	9 (15.5%)	5 (17.9%)	4 (13.3%)
Received compliments or comments about your body or figure	7 (12.1%)	2 (7.1%)	5 (16.7%)
Faced with an offensive body language (e.g. repeated leering, standing too close)	7 (12.1%)	1 (3.6%)	6 (20.0%)

♂= Male

♀= Female

Table 2: Medical trainees reporting different types of mistreatments according to sources/perpetrators

	Verbal Abuse			Physical Abuse			Academic Abuse			Sexual harassment		
	♂	♀	Total	♂	♀	Total	♂	♀	Total	♂	♀	Total
Consultants	21 (75%)	17 (56.7%)	38 (65.5%)	4 (14.3%)	3 (10%)	7 (12.1%)	18 (64.3%)	11 (36.7%)	29 (50%)	4 (14.3%)	5 (16.7%)	9 (15.5%)
Specialists	9 (32.1%)	10 (33.3%)	19 (32.8%)	1 (3.6%)	2 (6.7%)	3 (5.2%)	16 (57.1%)	14(46.7%)	30 (51.7%)	4 (14.3%)	6 (20%)	10 (17.2%)
Resident	4 (14.3%)	1 (3.3%)	5 (8.6%)	0	0	0	3 (10.7%)	4 (13.3%)	7 (12.1%)	2 (7.1%)	1(3.3%)	3 (5.2%)
Nurses	6 (21.4%)	12(40%)	18 (31%)	1 (3.6%)	4(13.3%)	5 (8.6%)	7 (25%)	7 (23.3%)	14 (24.1%)	2 (7.1%)	0	2 (3.4%)
Patients/ Relative	5 (17.9%)	7(23.3%)	12 (20.7%)	1 (3.6%)	2(6.7%)	3 (5.2%)	2 (7.1%)	2 (6.7%)	4 (6.9%)	1 (3.6%)	1 (3.3%)	2 (3.4%)
Others	1 (3.6%)	2(6.7%)	3 (5.2%)	0	0	0	1 (3.6%)	0	1 (1.7%)	0	0	0

♂= Male

♀= Female

Table 3: Medical Trainee Reporting Mistreatment according to Specialty

	ALL (n=58)	MEDICINE	SURGERY	PEDIATRICS
<i>VERBAL ABUSE</i>		32(55.2%)	17(29.3%)	15(25.9%)
Shouted at you	29 (50%)	20(62.5%)	11(64.7%)	9(60%)
Belittled or humiliated you during meetings or rounds	32 (55.2%)	21(65.6%)	10(58.8%)	13(86.7%)
Spoke to you un-respectfully	27 (46.6%)	18(56.2%)	8(47.1%)	11(73.3%)
<i>PHYSICAL ABUSE OR THREATS</i>		11(19%)	1(1.7%)	3(5.2%)
Threatened you with physical harms	7 (12.1%)	11(100%)	1 (100%)	3 (100%)
<i>ACADEMIC ABUSE</i>		35(60.3%)	17(29%)	9(15.5%)
You were asked to carry out some personal services unrelated to patient care or educational activities	17 (29.3%)	13(37.1%)	7(41.2%)	5(55.6%)
Your questions/queries were intentionally not answered	17 (29.3%)	10(28.6%)	9(52.9%)	3(33.3%)
You were forced to refer patient without providing reasonable cause for referral	30 (51.7%)	21(60%)	11(64.7%)	5(55.6%)
You were ask to take consent from very complicated cases	27(46.6%)	20(57.1%)	10(58.8%)	4(44.4%)
You were threatened with failure or giving poor evaluations for reasons unrelated to your academic performance	15(25.9%)	10(28.6%)	4(23.5%)	5(55.6%)
<i>SEXUAL HARASSMENT</i>		10(17.2%)	7(12.1%)	4(6.9%)
Received jokes or comments against your gender (M/F)	9 (15.5%)	5(50%)	5(71.4%)	2(50%)
Received compliments or comments about your body or figure	7 (12.1%)	4(40%)	3(42.9%)	1(25%)
Faced with an offensive body language (e.g. repeated leering, standing too close)	7 (12.1%)	6(60%)	1(14.3%)	2(50%)

Table 4: Medical trainees' narrative for either reporting reason or not reporting maltreatment

Reason/s for not reporting such abuse	%
1. I did not recognize the experience as an abuse at the time that it happened	N=19/58 (32.8%)
2. It was not significant to be reported to those in authority	N=19/58 (32.8%)
3. Reporting such abuse or mistreatment would not accomplish anything	N=24/58 (41.4%)
4. Reporting such mistreatment or abuse would become more troublesome than it was worth	N=25/58 (43.1%)
5. I dealt with the problem directly myself	N=13/58 (22.4%)
6. I did not know to whom I should report or how to complain	N=10/58 (17.2%)
7. I was afraid that reporting such abuse would adversely affect my evaluation or my professional career in future	N=24/58 (41.4%)
8. The abuser apologized to me	N=7/58 (12.1%)
9. I was afraid of not being believed or the problem would not be dealt fairly	N=8/58 (13.8%)
10. I was afraid that the reporting would not be kept confidential	N=17/58 (29.3%)

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Pilot study on the prevalence of abuse and mistreatment during clinical internship: a cross-sectional study among first year residents in Oman

Mohammed Al-Shafee¹, Yousuf Al-Kaabi¹, Yousuf Al-Farsi¹, Gillian White²,
Abdullah Al-Maniri¹, Hamed Al-Sinawi² and Samir Al-Adawi²

¹ Department of Family Medicine and Public Health, College of Medicine and Health Sciences, Sultan Qaboos University, Muscat, Oman

² Directorate of Education and Training, Ministry of Health, Oman

³ Department of Behavioral Medicine, College of Medicine and Health Sciences, Sultan Qaboos University, Muscat, Oman

Correspondence to:

Dr. Samir Al-Adawi,
Department of Behavioral Medicine,
College of Medicine and Health Sciences,
Sultan Qaboos University, P.O. Box 35,
Al-Khoudh 123, Muscat,
Sultanate of Oman

Telefax: + 968 24545203
Telephone: + 968 24141139
E-mail: adawi@squ.edu.om;
jimbo@omantel.net.om
samir-al-adawi@fulbrightmail.org

Abdullah Al-Maniri (almaniri@gmail.com)
Gillian White (drgillianwhite@yahoo.co.nz)
Hamed Al-Sinawi [hamad.senawi@gmail.com]
Mohammed Al-Shafee (shafae4@omantel.net.om)
Samir Al-Adawi (samir-al-adawi@fulbrightmail.org)
Yousuf Al-Farsi (dr.yousufalkaabi@gmail.com)
Yousuf Al-Kaabi (dryousufalfarsi@gmail.com)

ABSTRACT

Objective: To evaluate perceptions of being mistreated during internship among first year Oman Medical Specialty Board residents.

Design: A cross-sectional study

Setting: Training centers for Oman Medical Specialty Board

Participants: First year medical residents following completion of internship. During the study period 2009 – 2010

Method: A cross-sectional survey of 69 first year Medical residents

Results: Of 58 residents (response rate 84%) around 96.6% believed that mistreatment exists. Among different types of mistreatment, verbal and academic abuse was the most commonly reported (87.9%), followed by sexual harassment (24.1%), then physical abuse (22.4%). Forty-four (75.9%) residents had advised at least one of their relatives not to join medical school.

Conclusion: Mistreatment of medical interns is an ethical issue challenging the quality of clinical training. Further research is needed to understand factors influencing mistreatment and draw guidelines to limit such problems.

Key Words: Intern, internship mistreatment, verbal abuse, physical abuse, academic abuse, sexual harassment, Oman.

ARTICLE FOCUS

To understand factors influencing mistreatment and to draw guidelines to limit such problems

Report the experiences of mistreatment among medical trainees in Oman, an Arab/Islamic country.

KEY MESSAGES

The data suggests bullying behavior is rampant among medical trainees in Oman.

STRENGTHS AND LIMITATIONS OF THIS STUDY

Bullying behaviors have been reported in different occupational settings including the medical profession. There is dearth of study from Arab/Islamic countries.

To our knowledge, this is the first study on this endeavor from this part of the world.

This study is limited with small sample size and its cross-sectional study methodology.

INTRODUCTION:

Forms of abuse and other bullying behaviors have been reported in various occupational settings.¹⁻⁴ Studies carried out in different parts of the world suggest that medical professionals are no exception to maltreatment within institutional settings. Among various medical professionals who have reported abuse, those who are in the early phase of their careers, like interns, are the most vulnerable. According to Coverdale, Balon & Roberts the most common degrading experiences among interns include “threats, intimidation, humiliation, excessive criticism, covert innuendo, exclusion or denial of access to opportunity, undue additions to work requirements, and shifting of responsibilities without appropriate notice” (p.269).⁵

Studies have quantified mistreatment among medical trainees or those who are on the lower ladder of a medical career. Steven et al.⁶ reported in a national survey in the USA that about 93% of medical trainees endorsed the view that they have had at least one experience of mistreatment. Another survey undertaken in the UK⁷, reported that around 84% of medical trainees have been bullied and about 69% had witnessed bullying and harassment during their clinical placements. Other studies from societies that are similar to Western Europe, North American and Asia Pacific regions have also found evidence of maltreatment including Australia^{4,8}, New Zealand⁹, Ireland¹⁰, Argentina¹¹ and Japan.¹²⁻¹³

Maltreatment of medical trainees is not limited to Western countries.¹⁴⁻¹⁶ Ahmer et al.¹⁷ have reported pervasive and persistent tendencies for medical trainees in Pakistan to be subjected to ‘disrespectful interactions’, ‘belittlement’, ‘undermining’ and ‘humiliation’. Drawing from available literature, Coverdale, Balon & Roberts⁵ have categorized common forms of maltreatment directed towards medical trainees as verbal abuse or humiliation, nonsexual harassment, sexual harassment and forms of prejudice against sexual orientation and ethnicity.

There is a myriad of adverse impacts of mistreatment that can emerge as a result of trainees being subjected to maltreatment.^{18, 19} Schubert et al.^{19,20} have shown a significant relationship between verbal abuse during medical training and lower levels of confidence, regardless of sex, race, age or levels of ability and temperament. Richman et al.² studied mental health consequences among trainees who were subjected to

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8 maltreatment with disconcerting findings. There appeared to be tendencies for maltreated
9 trainees to have 'psychopathological outcomes' in the form of unrelenting affective
10 emotions, resorting to 'self-medication' and even dependency on mind altering
11 substances.^{20,21,22} This is consonant with well known observations that there are high
12 levels of stress and psychological distress among medical trainees.^{22,23,24} Such prevailing
13 situations have been suggested to play a role in the observed higher rate of suicide among
14 physicians compared to the general population.^{24,25,26} There is indication that medical
15 trainees who were most distressed at the beginning of their training, and were likely to
16 report more stress and distress in the subsequent course of their lives.^{26,27} According to
17 Miedema et al.^{27,28}, there are inbuilt mechanisms that perpetuate abusive behavior in the
18 medical culture, including working in what is perceived as a stressful environment. This
19 is suggestion that 'abuse begets ²⁸abuse²⁹', a view that might ~~implication for~~
20 ~~fostering simply the presence of~~ a cycle of bullying in medical profession.

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27 In the Arab world, evidence abounds that much emotional distress is present
28 among medical trainees^{30,32} including Oman.^{32,33} Although these Arabian studies should
29 be enlightening, most of them are rife with conceptual limitations. Many of them have
30 utilized assessment measures without local validity and therefore these studies fall into
31 the 'category of fallacy'.^{33,34} These studies could also be criticized on the ground that their
32 target population was pre-clinical students. Therefore generalizations cannot be applied
33 to interns. Internship, in parlance of the medical profession, is the period in which new
34 medical graduates learn medical practices in a hospital under supervision, prior to
35 beginning his or her specialization. In Oman, internship consists of three to four month
36 rotations, in which each intern (resident) is rotated through general medicine, general
37 surgery and either pediatrics or obstetrics and gynecology. Following internship in Oman,
38 further medical training is conducted under the auspices of Oman Medical Specialty
39 Board (<http://www.omsb.org>), a governmental body that is responsible for postgraduate
40 clinical training. An integral part of its function is to oversee the wellbeing of trainees,
41 through services that include a specialized office and designated person to which trainees
42 can submit any grievance.

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50 With evidence of adverse experiences among medical trainees in other parts of
51 the world and the fact that no data has been forthcoming from Oman, the present study
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8 aimed to quantify mistreatment or abuse among Omani medical interns. Interrelated aims
9 were to explore the level of mistreatment among medical trainees according to gender,
10 perpetrator, and specialty, as well as gauge to the reasons for not reporting maltreatment,
11 to the concerned authority.
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14 15 16 **METHODS AND MATERIALS:**

17 **Study Population**

18 The study was carried out among first year medical residents following
19 completion of internship. During the study period 2009 – 2010 a total of 69 medical
20 residents were ~~enrolled~~invited to participate in this study. The residents were approached
21 to participate in this study during a research workshop conducted in May 2010. Each
22 participant was asked to fill in a questionnaire about their experience and perceptions of
23 mistreatment and abuse with reference to their internship. In the cover letter with the
24 survey, it was indicated to the participants that this was anonymous survey and their
25 participation was entirely voluntary and data gathered would be kept confidential and
26 they may withdraw any from the study, without prejudice at any time. In case the
27 participants incur any undue distress while contemplating on the items of the
28 questionnaire, mental health support will be duly provided. The participants were asked
29 not to discuss the questionnaire among themselves in order to avoid peer influence.
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36 37 **ASSESSMENT MEASURES**

38 The Likert-type questionnaire was adapted from those developed by Sheehan et
39 al.²³²⁴ Baldwin et al.³⁴³⁵ and Uhari et al.³⁵³⁶ and focused on indexing ‘verbal abuse’,
40 ‘physical abuse or threats’, ‘academic abuse’ and ‘sexual harassment’ (Table 1). *Physical*
41 *Abuse* is defined as threat that, if executed, would likely cause physical harm. Other
42 forms of physical abuse, such as, slapping, pushing, hitting, kicking or having objects
43 thrown at the interns are an integral part of the present definition of physical abuse.
44 Physical abuse also entails being placed at unnecessary medical risk. *Academic Abuse* is
45 defined as coercion to carry out some personal services unrelated to the expected role of
46 interns. The concept of academic abuse also encapsulates instances in which interns
47 being excluded from otherwise reasonable learning opportunities offered to others, or are
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8 threatened with failure or poor evaluations for reasons unrelated to one's academic
9 performance. *Sexual Harassment* is defined in the following terms: being subjected to
10 jokes or comments against one's gender or body figure. Sexual harassment entails being
11 subjected to repeated leering or offered unwanted gifts. Being offered private sessions or
12 better grades in exchange for an extra-marital affair as well as inappropriate touching of a
13 sexual nature constitute examples of sexual harassment.

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17 Various socio-demographic information (e.g. age, sex, year of residency, marital
18 status and current specialty) was also sought from the consenting participants. The
19 participants were also given the option to use free text to describe reasons for reporting or
20 not reporting maltreatment.

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23 The questionnaire was delivered to each participant in a closed envelope, which
24 also contained a description of the study, along with a statement of confidentiality so that
25 informed consent could be obtained. To assure anonymity, participants were explicitly
26 informed not to make any reference to their identity on the questionnaire. **Return of a
27 filled out questionnaire was taken as consent to be a participant.**

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28 29 30 ANALYSIS

31 Both descriptive statistics as raw counts and percentage are presented. The free
32 narrative was assessed using thematic analysis.

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34 The study was approved by the local institutional review board (IRB), and the
35 Research and Ethics Committee of College of Medicine and Health Sciences, Sultan
36 Qaboos University (MREC#382)

37 38 RESULTS

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40 The results are presented first as simple demographics of the sample and then in
41 relation to the aims of the study. The response rate was 84.2% (58/69 residents) of which
42 30 (51.7%) were female and 28 (48.3%) were male. Their ages ranged from 25 to 35
43 years (mean of 27.83 yrs and standard deviation of 1.63 yrs).

44 45 Experience of Mistreatment according to Gender

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47 Table 1 shows perceived maltreatment according to gender. Out of total 12 items
48 eliciting maltreatment, males dominated in 6 of them. However, no statistical differences
49 were found between genders on any one item. When each form of maltreatment was
50 collapsed into 'verbal abuse', 'physical abuse or threats', 'academic abuse', and 'sexual
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8 harassment', the only category of statistical significance at the 95% confidence level was
9 'academic abuse' where the males reported higher levels of mistreatment ($p \leq 0.004$).

11 **Experience of Mistreatment according to Perpetrator**

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13 As shown in Table 2, Consultants outshone others in perpetuating verbal abuse
14 and physical abuse. They were also more likely to be guilty of academic abuse toward the
15 male residents ($p = 0.03$). Consultants and Specialists together were implicated in
16 academic abuse and sexual harassment more than other groups that the residents
17 encountered.
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20 **Experience of Mistreatment according to Specialty**

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22 Three specialties (medicine, surgery, pediatrics) were scrutinized for variations in
23 dispensing maltreatment to the residents. As shown in Table 3, the data can be
24 extrapolated in three ways. Firstly, all indices of maltreatment were significantly higher
25 during medical rotation than pediatrics or surgery ($p = 0.005$). Secondly, pediatrics was
26 second highest in dispensing maltreatment. Thirdly, verbal abuse was the highest type of
27 maltreatment reported (36.8%) closely followed by academic abuse (35%).
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30 **Reasons for not reporting Maltreatment**

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32 The major reason for not reporting maltreatment elicited from the free text
33 responses was to avoid further trouble, as the Residents believed that. "Reporting could
34 adversely affect evaluation and professional career." Such behavior, out of fear, could be
35 seen as secondary abuse. Some respondents did not know how to deal with the problem
36 or preferred to deal with the maltreatment themselves as they "did not know whom to
37 report to or how to make the complaint." Seven respondents did not report the
38 maltreatment because the perpetrator had "apologized" to them. It was also not
39 uncommon to not recognize "the experience as abuse at the time it happened."
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45 **DISCUSSION**

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47 To our knowledge the present research is the first to describe four interrelated
48 patterns in relation to maltreatment from the experience of first year medical residents in
49 Arab countries: gender of the victim, types of maltreatment, specialty rotation where
50 maltreatment occurred, and reasons for not reporting maltreatment—~~among Arab~~
51 ~~countries.~~ Although the intended population was small, the rate of response to the survey
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8 was high and the gender distribution of participants was fairly balanced. Most of the
9 participants were undertaking a medical specialty and were in their late twenties. Pending
10 further scrutiny as this should be viewed as a pilot study or sentinel. This survey indicates
11 the rates of maltreatment to be alarming in the presently observed cohort. On the whole,
12 the present findings substantiate the view that maltreatment is prevalent during medical
13 training even in this particular population.^{6, 7, 20, 37-38}

17 -One of the aims of this study was to examine whether there is a gender difference
18 in perceived maltreatment. Maltreatment and sexual abuse (that is abuse of a personal
19 nature) echo the global situation where such patterns are common among working
20 women³⁹ and nonetheless, female doctors.^{40, 41} The result of the present study suggests
21 there was no significant difference as per gender although young female doctors were
22 more likely to experience threats and sexual harassment.

23 It is not clear why the present cohort appears to ostensibly differ from trend commonly observed elsewhere. Some
24 speculations are therefore warranted. It is possible that gender segregation, a common
25 social prescription in the region, may have insidiously shielded female from being
26 subjected to maltreatment. In traditional Omani society, gender segregation has been
27 suggested to have been socio-culturally sanctioned in order to enhance female safety.⁴² It
28 is also possible that trajectory of modernity and empowerment may have also played
29 present observation. There is indication that recent affluence in Oman has narrowed
30 traditional the gender gap common in such patrilineal society. Drawing from data from
31 the Ministry of Health in Oman, Alshishtawy⁴³ has indicated that approximately 60% of
32 the workforce in Oman are females. Accordingly, "women outnumbered men in all
33 medical and health categories" and "feminisation" of the medical/health sciences
34 professions in Oman has reversed the male dominance of past years" [p.273]. Therefore,
35 preponderance of female in healthcare sectors in Oman might have played instrumental
36 role in moderating a stereotypical picture of senior male abusing junior female.

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37 The second interrelated aim of the present quest was to shed light on the
38 perpetrators of maltreatment. The present descriptive data unequivocally implicated those
39 in the top echelon, such as consultants and specialists, in perpetrating academic abuse and
40 sexual harassment. Studies elsewhere suggest that maltreatment often comes from
41 nonmedical staff, but according to Hinze⁴⁴ and Ahmer et al.¹⁷ senior medical staff were
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8 not innocent either. However, this preliminary study suggests that hierarchy is strongly
9 associated with propensity to dispense abuse. It is possible that such occurrences may
10 stem from cultural patterning. While social institution in Western Europe and North
11 American countries have explicitly made corporal punishment as retribution for an
12 academic misbehavior as unacceptable (a view is enshrined in legal and judicial system),
13 some reports have noted occurrence of aggressive act toward junior doctors.⁴²⁴⁵ It is
14 possible that senior members, the traditional teacher, or father-figure, demand filial
15 obedience from the students, in this case junior doctors. However, notwithstanding such a
16 view, it appears that maltreatment of novices in the medical profession exists in many
17 societies including those that do not prescribe to cultural patterning common in Oman.⁴
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23 ⁴³⁴⁶ Therefore, factors within the medical culture itself need to be explored in order to
24 devise evidence-based interventions to mitigate senior members abusing the junior ones.
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26 Knowing which type of abuse comes from which source enable educators to focus
27 their resources to prevent maltreatment. Cook, Liutkus and [Risdon⁴⁷](#) have suggested that
28 there is no ‘magic-bullet’ to mitigate the prevailing maltreatment of medical trainees.
29 One possible venue is to institute mandatory courses for medical staff on awareness about
30 the consequences of abuse and maltreatment. Medical schools and health care systems
31 should have inbuilt mechanisms where victims of abuse can air their grievances
32 confidentially without consequently jeopardizing their careers.
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36 Some obvious caveats are imperative to mention. This data presents residents’
37 self-responses. Such method of eliciting information is likely to be rife with
38 methodological deficit. Self-serving biases are well known in such studies.⁴⁵⁴⁸ It is also
39 possible that recall bias could have contaminated their responses.⁴⁶⁴⁹ An integral part of
40 recall bias, is that when individuals find certain events as emotional debilitating, the
41 obvious recourse is to repress the memory of those events. Therefore, future studies
42 should have an in-built mechanism to reduce the likelihood of recall bias. Secondly,
43 some insidious cultural factors are likely to play factor in the present observation. The
44 Omani culture is known to be a culture of honor and ‘shame’, which means that many of
45 life’s maltreatments are likely to be ‘concealed’.⁴⁷ **In fact, eleven residents chose not to**
46 **participate.**⁵⁰ Despite the anonymous nature of the present study, it is possible that
47 incidences of sexual harassment or maltreatment were likely to be ‘denied’ resulting in
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spurious data. Despite the above-mentioned caveats, interesting issues have emerged from the present study that needs to be followed up in a wider context. Finally, the lack of qualitative data in a phenomenological study of perceived experience is likely to represent a major limitation of this study in particular in a population where such studies have not yet been forthcoming. Therefore, in studies eliciting perceived experiences on cross-cultural samples, inclusion of qualitative research methodology such as interviews are likely to yield more fruitful results.⁴⁸⁵⁰ Such undertaking would have laid the groundwork for more meaningful quantitative research instruments. Thereby, the present finding could be scrutinized with studies that have included some interviews or focus groups so that the participants' interpretations could be explored in depth.

CONCLUSION

Mistreatment of medical interns is emerging as a global challenge. To our knowledge, this is the first study from the Arabian Gulf that explores maltreatment and abuse in a medical setting. Fifty eight residents consented to participate in this present anonymous survey which consisted of approximately 84% of the interns. In terms of experience of mistreatment according to gender, males admitted to have experienced higher levels of mistreatment. In terms of the perpetrator of harassment and abuse, it appears that hierarchy counts. Those who were commanding higher positions were more prone to fall foul to committing maltreatment and abuse. It also appeared that the problems were more rampant in the subspecialists of medicine. Further research is needed to understand factors influencing mistreatment and draw up guidelines to limit such problems. However the findings should lead to the identification of factors perpetuating maltreatment and abuse among medical trainee interns. Thus, evidence-based interventions can be contemplated.

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Competing interests: None

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10 **Participant consent:** Obtained.

11 **Ethics approval:** Ethics approval was provided by the local institutional review board
12 (IRB), Research and Ethics Committee of College of Medicine and Health Sciences,
13 Sultan Qaboos University (MREC#382)

14 **Conflicts of interest:** none

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17 **Contributors**

18 M-AS is responsible for study supervision, T-AK and Y-AF are responsible for study
19 concept and design and data collection, A-AM is responsible for integrity of the data and
20 the accuracy of the data analysis and GW, H- AS and S-AA were responsible for
21 drafting, literature review and scientific approach of the write-up.
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23 **REFERENCES:**

- 24
25 1. Borg MG. The extent and nature of bullying among primary and secondary
26 schoolchildren. *Educ Res* 1999; 41:137-53.
27
28 2. Richman JA, Rospenda KM, Nawyn SJ, F et al. Sexual harassment and
29 generalized workplace abuse among university employees: Prevalence and mental
30 health correlates. *Am J Public Health* 1999; 89:358-63.
31
32 3. Maida AM, Vasquez A, Herskovic V, et al. A report on student abuse during
33 medical training. *Med Teach* 2003; 25:497-501.
34
35 4. White GE: Sexual harassment during medical training: the perceptions of medical
36 students at a university medical school in Australia. *Med Educ* 2000; 34:980-86.
37
38 5. Coverdale JH, Balon R, Roberts LW. Mistreatment of trainees: verbal abuse and
39 other bullying behaviors. *Acad Psychiatry* 2009; 33:269-73.
40
41 6. Daugherty SR, Baldwin DC Jr, Rowley BD. Learning, satisfaction, and
42 mistreatment during medical internship: a national survey of working conditions.
43 *JAMA* 1998; 279:1194-9.
44
45 7. Quine L. Workplace bullying in junior doctors: questionnaire survey. *BMJ* 2002;
46 324:878-9.
47
48 8. Askew DA, Schluter PJ, Dick ML, et al. Bullying in the Australian medical
49 workforce: cross-sectional data from an Australian e-Cohort study. *Aust Health*
50 *Rev* 2012; 36:197-204.
51
52 9. Scott J, Blanshard C, Child S. Workplace bullying of junior doctors: cross-
53 sectional questionnaire survey. *N Z Med J* 2008 Sep 22; 121:10-4.
54
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35
36
37
10. Finucane P, O'Dowd T. Working and training as an intern: a national survey of Irish interns. *Med Teach* 2005; 27:107-13.
 11. Mejía R, Diego A, Alemán M, et al. Perception of mistreatment during medical residency training. *Medicina (B Aires)* 2005; 65: 295-301.
 12. Nagata-Kobayashi S, Maeno T, Yoshizu M, et al. Universal problems during residency: abuse and harassment. *Med Educ* 2009; 43:628-36.
 13. Nagata-Kobayashi S, Sekimoto M, Koyama H, et al. Medical student abuse during clinical clerkships in Japan. *J Gen Intern Med* 2006; 21:212-8
 14. Yildirim D, Yildirim A, Timucin A. Mobbing behaviors encountered by nurse teaching staff. *Nurs Ethics* 2007; 14:447-63.
 15. Bairy KL, Thirumalaikolundusubramanian P, Sivagnanam G, et al. Bullying among trainee doctors in Southern India: a questionnaire study. *J Postgrad Med* 2007; 53:87-90.
 16. Imran N, Jawaid M, Haider II, et al. Bullying of junior doctors in Pakistan: a cross-sectional survey. *Singapore Med J* 2010; 51: 592-95.
 17. Ahmer S, Yousafzai AW, Siddiqi M, et al. Bullying of trainee psychiatrists in Pakistan: a cross-sectional questionnaire survey. *Acad Psychiatry* 2009; 33:335-39.
 18. Dyrbye LN, Harper W, Moutier C, Durning SJ, Power DV, Massie F, et al. A multi-institutional study exploring the impact of positive mental health on medical students' professionalism in an era of high burnout. *Acad Med* 2012; 87: 1024-1031.

38 ^{19.} Dyrbye LN, Massie FS Jr, Eacker A, Harper W, Power DV, Durning S, Thomas MR, Moutier C, Satele D, Sloan JA, Shanafelt TD. 'Relationship between Burnout and Professional Conduct and Attitudes among US Medical Students'. *JAMA*, 2010; 304:1173-1180.

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43 20. Schuchert MK. The relationship between verbal abuse of medical students and their confidence in their clinical abilities. *Acad Med* 1998; 73: 907-9.

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46 ~~20~~

47 21. Dyrbye LN, Thomas MR, Massie FS, Power DV, Eacker A, Harper W, Durning S, Shanafelt TD. Burnout and suicidal ideation among U.S. medical students. ~~*Annals of Internal Medicine*~~ *Ann Intern Med* 2008; 149: 334-341.

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2
3
4
5
6
7
8 | [2122](#). Bhan, A. Substance abuse among medical professionals: A way of coping with
9 job dissatisfaction and adverse work environments. *Indian J Med Sci* 2009; 63:
10 308-309.
- 11
12 | [2223](#). Dyrbye LN, Thomas MR, Shanafelt TD. Medical student distress: causes,
13 consequences, and proposed solutions. *Mayo Clin Proc* 2005; 80:1613-22.
- 14
15 | [2324](#). Sheehan KH, Sheehan DV, White K, et al A pilot study of medical student
16 'abuse'. Student perceptions of mistreatment and misconduct in medical school.
17 *JAMA* 1990; 263:533-37.
- 18
19 | [2425](#). Aasland OG, Hem E, Haldorsen T, et al. Mortality among Norwegian doctors
20 1960-2000. *BMC Public Health* 2011; 11:173.
- 21
22 | [2526](#). Petersen MR, Burnett CA. The suicide mortality of working physicians and
23 dentists. *Occup Med (Lond)* 2008; 58: 25-29.
- 24
25 | [2627](#). Tartas M, Walkiewicz M, Majkiewicz M, et al. Psychological factors determining
26 success in a medical career: a 10-year longitudinal study. *Med Teach* 2011; 33:
27 e163-72.
- 28
29 | [2728](#). Miedema B, MacIntyre L, Tatemichi S, et al. How the medical culture contributes
30 to coworker-perpetrated harassment and abuse of family physicians. *Ann Fam*
31 *Med* 2012; 10: 111-17.
- 32
33 | [2829](#). Al-Adawi S, Al-Bahlani S Domestic violence: "What's love got to do with it?".
34 *Sultan Qaboos Univ Med J*. 2007; 7: 5-14.
- 35
36 | [2930](#). Ahmed I, Banu H, Al-Fageer R, et al. Cognitive emotions: Depression and
37 anxiety in medical students and staff. *J Crit Care* 2009; 24:e1-7.
- 38
39 | [3031](#). Al-Saleh SA, Al-Madi EM, Al-Angari NS, et al. Survey of perceived stress-
40 inducing problems among dental students, Saudi Arabia. *Saudi Dent J* 2010;
41 22:83-8.
- 42
43 | [3132](#). Al-Dabal BK, Koura MR, Rasheed P, et al. A comparative study of perceived
44 stress among female medical and non-medical university students in Dammam,
45 Saudi Arabia. *Sultan Qaboos Univ Med* 2010; 10:231-40.
- 46
47 | [3233](#). Al-Busaidi Z, Bhargava K, Al-Ismaily A, et al. Prevalence of Depressive
48 Symptoms among University Students in Oman. *Oman Med J* 2011; 26:235-39.
- 49
50 | [3334](#). Al-Adawi SS. Re: Comparative study of Perceived Stress among Female Medical
51 and Non-Medical University Students in Dammam, Saudi Arabia. *Sultan Qaboos*
52 *Univ Med J* 2010; 10:410-11.
- 53
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7
8 | [3435](#). Baldwin DC Jr, Daugherty SR, Eckenfels EJ: Student perceptions of mistreatment and harassment during medical school: a survey of ten United States schools. *West J Med* 1991, 155:140-145.
- 9
10
11 | [3536](#). Uhari M, Kokkonen J, Nuutinen M, Vainionpää L, Rantala H, Lautala P, Väyrynen M: Medical student abuse: An international phenomenon. *JAMA* 1994, 271:1049-1051.
- 12
13
14 | [3637](#). Einarsen S, Raknes BI: Harassment in the workplace and the victimization of men. *Violence Vict* 1997; 12:247-63.
- 15
16
17 | [3738](#). Richman JA, Flaherty JA, Rospenda KM, et al. Mental health consequences and correlates of reported medical student abuse. *JAMA* 1992; 267: 692-4.
- 18
19
20 | [3839](#). Eloul L, Ambusaidi A, Al-Adawi S. Silent Epidemic of Depression in Women in the Middle East and North Africa Region: Emerging tribulation or fallacy? *Sultan Qaboos Univ Med J* 2009; 9: 5-15.
- 21
22
23 | [3940](#). Nora LM, McLaughlin MA, Fosson SE, et al. Gender discrimination and sexual harassment in medical education: perspectives gained by a 14-school study. *Acad Med* 2002; 77:1226-34.
- 24
25
26 | [4041](#). Larsson C, Hensing G, Allbeck P: Sexual and gender-related harassment in medical education and research training: results from a Swedish survey. *Med Educ* 2003, 37:39-50.
- 27
28
29 | [4142](#). Wikan U. Behind the Veil in Arabia: Women in Oman. Chicago: University of Chicago Press, 1991.
- 30
31
32 | [43](#). Alshishtawy M. Re: Afghanistan and Oman: Personal reflections on a profound contrast. *Sultan Qaboos Univ Med J* 2010; 10:272-275.
- 33
34
35 | [44](#). Hinze SW. 'Am I being over-sensitive?' Women's experience of sexual harassment during medical training. *Health (London)* 2004; 8:101-27.
- 36
37
38 | [4245](#). Madhiwalla N, Roy N. Assaults on public hospital staff by patients and their relatives: an inquiry. *Indian J Med Ethics* 2006, 3; 51-54.
- 39
40
41 | [4346](#). Moscarello R, Margittai KJ, Rossi M. Differences in abuse reported by female and male Canadian medical students. *Can Med Assoc J* 1994; 150: 357-63.
- 42
43
44 | [4447](#). Cook DJ, Liutkus JF, Risdon CL, et al. Residents' experiences of abuse, discrimination and sexual harassment during residency training. McMaster University Residency Training Programs. *Can Med Assoc J* 1996; 154:1657-65.
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8 | [4548](#). Mezulis AH, Abramson LY, Hyde JS, Hankin BL. Is there a universal positivity bias in attributions? A meta-analytic review of individual, developmental, and cultural differences in the self-serving attributional bias. *Psychol Bull* 2004; 130:711-47.
- 9
10
11
12 | [4649](#). Coughlin SS. Recall bias in epidemiologic studies. *J Clin Epidemiol* 1990; 43:87-91.
- 13
14
15
16 | [4750](#). Dwairy M, Van Sickle T.D. Western psychotherapy in traditional Arabic societies. *Clin Psychol Rev*. 1996; 16: 231-49.
- 17
18
19 | [4851](#). Al-Adawi S, Al-Busaidi Z, Al-Adawi SS, Burke DT. Families Coping With Disability Due to Brain Injury in Oman: Attribution to Belief in Spirit Infestation and Ensorcellment. *SAGE Open* July-September 2012: 1-8 DOI: 10.1177/2158244012457400.
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Table 1: Medical trainee reporting different types of mistreatment according to sex

	♂+♀ (N=58)	♂ (N=28)	♀ (N=30)
VERBAL ABUSE			
Shouted at you	29 (50%)	14 (50%)	15 (50%)
Belittled or humiliated you during meetings or rounds	32 (55.2%)	17 (60.7%)	15 (50%)
Spoken to you un-respectfully	27 (46.6%)	13 (46.4%)	14 (46.7%)
PHYSICAL ABUSE OR THREATS			
Threatened you with physical harms	7 (12.1%)	3 (10.7%)	4 (13.3%)
ACADEMIC ABUSE			
You were asked to carry out some personal services unrelated to patient care or educational activities	17 (29.3%)	10 (35.7%)	7 (23.3%)
Your questions/queries were intentionally not answered	17 (29.3%)	11 (39.3%)	6 (20.0%)
You were forced to refer patient without providing reasonable cause for referral	30 (51.7%)	15 (53.6%)	15 (50%)
You were ask to take consent from very complicated cases	27(46.6%)	16 (57.1%)	11 (36.7%)
You were threatened with failure or giving poor evaluations for reasons unrelated to your academic performance	15(25.9%)	11 (39.3%)	4 (13.3%)
SEXUAL HARASSMENT			
Received jokes or comments against your gender (M/F)	9 (15.5%)	5 (17.9%)	4 (13.3%)
Received compliments or comments about your body or figure	7 (12.1%)	2 (7.1%)	5 (16.7%)
Faced with an offensive body language (e.g. repeated leering, standing too close)	7 (12.1%)	1 (3.6%)	6 (20.0%)

♂= Male

♀= Female

Table 2: Medical trainees reporting different types of mistreatments according to sources/perpetrators

	Verbal Abuse			Physical Abuse			Academic Abuse			Sexual harassment		
	♂	♀	Total	♂	♀	Total	♂	♀	Total	♂	♀	Total
Consultants	21 (75%)	17 (56.7%)	38 (65.5%)	4 (14.3%)	3 (10%)	7 (12.1%)	18 (64.3%)	11 (36.7%)	29 (50%)	4 (14.3%)	5 (16.7%)	9 (15.5%)
Specialists	9 (32.1%)	10 (33.3%)	19 (32.8%)	1 (3.6%)	2 (6.7%)	3 (5.2%)	16 (57.1%)	14(46.7%)	30 (51.7%)	4 (14.3%)	6 (20%)	10 (17.2%)
Resident	4 (14.3%)	1 (3.3%)	5 (8.6%)	0	0	0	3 (10.7%)	4 (13.3%)	7 (12.1%)	2 (7.1%)	1(3.3%)	3 (5.2%)
Nurses	6 (21.4%)	12(40%)	18 (31%)	1 (3.6%)	4(13.3%)	5 (8.6%)	7 (25%)	7 (23.3%)	14 (24.1%)	2 (7.1%)	0	2 (3.4%)
Patients/ Relative	5 (17.9%)	7(23.3%)	12 (20.7%)	1 (3.6%)	2(6.7%)	3 (5.2%)	2 (7.1%)	2 (6.7%)	4 (6.9%)	1 (3.6%)	1 (3.3%)	2 (3.4%)
Others	1 (3.6%)	2(6.7%)	3 (5.2%)	0	0	0	1 (3.6%)	0	1 (1.7%)	0	0	0

♂= Male
♀= Female

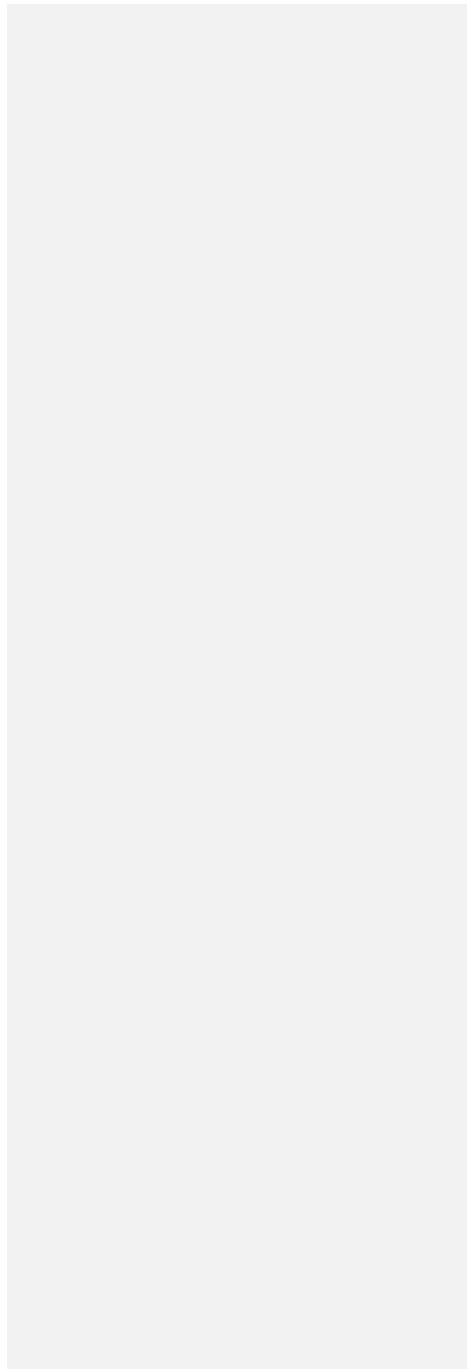
Table 3: Medical Trainee Reporting Mistreatment according to Specialty

	ALL (n=58)	MEDICINE	SURGERY	PEDIATRICS
VERBAL ABUSE		32(55.2%)	17(29.3%)	15(25.9%)
Shouted at you	29 (50%)	20(62.5%)	11(64.7%)	9(60%)
Belittled or humiliated you during meetings or rounds	32 (55.2%)	21(65.6%)	10(58.8%)	13(86.7%)
Spoke to you un-respectfully	27 (46.6%)	18(56.2%)	8(47.1%)	11(73.3%)
PHYSICAL ABUSE OR THREATS		11(19%)	1(1.7%)	3(5.2%)
Threatened you with physical harms	7 (12.1%)	11(100%)	1 (100%)	3 (100%)
ACADEMIC ABUSE		35(60.3%)	17(29%)	9(15.5%)
You were asked to carry out some personal services unrelated to patient care or educational activities	17 (29.3%)	13(37.1%)	7(41.2%)	5(55.6%)
Your questions/queries were intentionally not answered	17 (29.3%)	10(28.6%)	9(52.9%)	3(33.3%)
You were forced to refer patient without providing reasonable cause for referral	30 (51.7%)	21(60%)	11(64.7%)	5(55.6%)
You were ask to take consent from very complicated cases	27(46.6%)	20(57.1%)	10(58.8%)	4(44.4%)
You were threatened with failure or giving poor evaluations for reasons unrelated to your academic performance	15(25.9%)	10(28.6%)	4(23.5%)	5(55.6%)
SEXUAL HARASSMENT		10(17.2%)	7(12.1%)	4(6.9%)
Received jokes or comments against your gender (M/F)	9 (15.5%)	5(50%)	5(71.4%)	2(50%)
Received compliments or comments about your body or figure	7 (12.1%)	4(40%)	3(42.9%)	1(25%)
Faced with an offensive body language (e.g. repeated leering, standing too close)	7 (12.1%)	6(60%)	1(14.3%)	2(50%)

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Table 4: Medical trainees’ narrative for either reporting reason or not reporting maltreatment

Reason/s for not reporting such abuse	%
1. I did not recognize the experience as an abuse at the time that it happened	N=19/58 (32.8%)
2. It was not significant to be reported to those in authority	N=19/58 (32.8%)
3. Reporting such abuse or mistreatment would not accomplish anything	N=24/58 (41.4%)
4. Reporting such mistreatment or abuse would become more troublesome than it was worth	N=25/58 (43.1%)
5. I dealt with the problem directly myself	N=13/58 (22.4%)
6. I did not know to whom I should report or how to complain	N=10/58 (17.2%)
7. I was afraid that reporting such abuse would adversely affect my evaluation or my professional career in future	N=24/58 (41.4%)
8. The abuser apologized to me	N=7/58 (12.1%)
9. I was afraid of not being believed or the problem would not be dealt fairly	N=8/58 (13.8%)
10. I was afraid that the reporting would not be kept confidential	N=17/58 (29.3%)



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REVIEWER	REVIEWERS' COMMENTS	AUTHORS' RESPONSES
David Power		
	<p>This is definitely improved over previous draft. I like that this is framed more as a pilot study and would recommend that language continue through the discussion.</p> <p>Some of the English still needs slight tweaking - I recommend a non-medical editor review it for grammar.</p>	<p>Another attempt was made to improve the language</p>
	<p>On re-read, I am concerned about how participants were enrolled in the study - especially since, for a survey, this is a very high response rate. The reader needs to be clear that participants knew participation was voluntary - if this was so, I would recommend stating that. I would remove the sentence 'return of a completed survey was interpreted as a sign of informed consent'. Instead, the cover letter with the survey should have clearly indicated to the participant that this was a research study and that participation was entirely voluntary. If this was the case, I would state this more clearly. I would also remove the comment in discussion about the 11 who did not respond - since a 100% response rate is completely unrealistic - this is a very high response rate as it is - but, again, we need reassurance that participants voluntarily response and knew it was a research study.</p> <p>I believe the informed consent process as outlined in first textbox needs to be re-written. I hope authors did make it clear to respondents about their voluntary participation in a research study - and expect this was so given that it was reviewed by an IRB.</p>	<p>We thank the esteemed reviewer for raising this important issue. The text has been revised in order to take onboard on this issue.</p>
	<p>I would suggest that this reference was a more impactful study than the one quoted for Dyrbye et al (I acknowledge I was also a co-author on this one): Dyrbye LN, Massie FS Jr, Eacker A, Harper W, Power DV, Durning S, Thomas MR, Moutier C, Satele D, Sloan JA, Shanafelt TD. 'Relationship</p>	<p>Done as suggested.</p>

	between Burnout and Professional Conduct and Attitudes among US Medical Students'. Journal of the American Medical Association (JAMA), 2010, 304(11):1173-80.	
	In the discussion I would focus more on the fact that female students did not experience more abuse than males - I think this is very surprising. One of the results not shared was the gender of the perpetrator - is that information known? I assume most consultants are male. If there is any data on this, I would share it in the gender section. Since a more senior male attending abusing a junior female intern seems such a stereotypical picture, I would address this topic more.	Additional paragraph has been added to touch base on this important issue. Again, we are grateful to our esteemed reviewers for bringing this issue.
	I fully support this being published as a preliminary pilot survey which is unique from Oman.	Thank you
	Would you be willing to share your data? Cast your vote in our http://80911.poll daddy.com/s/would-you-be-willing-to-share-your-data-in-an-open-repository > Online Poll	Yes and we casted my vote



Pilot study on the prevalence of abuse and mistreatment during clinical internship: a cross-sectional study among first year residents in Oman

Journal:	<i>BMJ Open</i>
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Complete List of Authors:	Al-Shafee, Mohammed; Sultan Qaboos University, Family Medicine and Public Health Al-Kaabi, Yousuf; Sultan Qaboos University, College of Medicine & Health Sciences, Department of Family Medicine and Public Health Al-Farsi, Yousuf; Sultan Qaboos University, College of Medicine & Health Sciences, Department of Family Medicine and Public Health White, Gillian; Ministry of Health, Directorate of Education and Training Al-Maniri, Abdullah; Sultan Qaboos University, Family Medicine and Public Health Al-Sinawi, Hamedi; Sultan Qaboos University, Department of Behavioural Medicine Al-Adawi, Samir; Sultan Qaboos University, Department of Behavioral Medicine
Primary Subject Heading:	Medical education and training
Secondary Subject Heading:	Medical education and training
Keywords:	EDUCATION & TRAINING (see Medical Education & Training), OCCUPATIONAL & INDUSTRIAL MEDICINE, MENTAL HEALTH

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<p>You refer to 'anonymous' reviewers in your cover letter - I hope you saw that at no point were the reviewers anonymous. Their names were included in the letters next to their reviews.</p>	<p>That was an error so it would be clarified in all other communications.</p>
<p>The language in the paper still needs to be checked, probably by a native English speaker. For example you state: 'It is possible that gender segregation, a common social prescription in the region, may have insidiously shielded female from being subjected to maltreatment.' I'm not sure that insidious is the best way here, as it's generally thought of in the first sense here: http://www.merriam-webster.com/dictionary/insidious</p>	<p>A help from native speaker was sought.</p>
<p>In the abstract the results say 'Of 58 residents (response rate 84%) around 96.6%' but 96.6% is sufficiently precise that you don't need to say 'around'.</p>	<p>Done as suggested</p>
<p>The key message states 'The data suggests bullying behavior is rampant among medical trainees in Oman' - but you were measuring perceptions, not actual behaviour, so this message needs to be more subtle. A less emotive term than 'rampant' would also be more appropriate. There are other examples, so I suggest that a native English speaker should be involved in editing the paper to an appropriate standard. The help that you receive should be acknowledged in the acknowledgements section.</p>	<p>The sentence has been revised as suggested</p>
<p>Also, is this the only medical school in Oman?</p>	<p>The participants were part of "Oman Medical Specialty Board" (OMSB). This is a residents program. In Oman, OMSB is a separate entity and not part of medical schools.</p>

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Pilot study on the prevalence of abuse and mistreatment during clinical internship: a cross-sectional study among first year residents in Oman

Mohammed Al-Shafee¹, Yousuf Al-Kaabi¹, Yousuf Al-Farsi¹, Gillian White²,
Abdullah Al-Maniri¹, Hamed Al-Sinawi² and Samir Al-Adawi²

¹ Department of Family Medicine and Public Health, College of Medicine and Health Sciences, Sultan Qaboos University, Muscat, Oman

² Directorate of Education and Training, Ministry of Health, Oman

³ Department of Behavioral Medicine, College of Medicine and Health Sciences, Sultan Qaboos University, Muscat, Oman

Correspondence to:

Dr. Samir Al-Adawi,
Department of Behavioral Medicine,
College of Medicine and Health Sciences,
Sultan Qaboos University, P.O. Box 35,
Al-Khoudh 123, Muscat,
Sultanate of Oman

Telefax: + 968 24545203
Telephone: + 968 24141139
E-mail: adawi@squ.edu.om;
jimbo@omantel.net.om
samir-al-adawi@fulbrightmail.org

Abdullah Al-Maniri (almaniri@gmail.com)
Gillian White (drgillianwhite@yahoo.co.nz)
Hamed Al-Sinawi [hamad.senawi@gmail.com]
Mohammed Al-Shafee (shafae4@omantel.net.om)
Samir Al-Adawi (samir-al-adawi@fulbrightmail.org)
Yousuf Al-Farsi (dr.yousufalkaabi@gmail.com)
Yousuf Al-Kaabi (dryousufalfarsi@gmail.com)

ABSTRACT

Objective: To evaluate perceptions of being mistreated during internship among first year Oman Medical Specialty Board residents.

Design: A cross-sectional study

Setting: Training centers for Oman Medical Specialty Board

Participants: First year medical residents following completion of internship during the study period 2009 – 2010

Method: A cross-sectional survey of first year medical residents

Results: Of 58 residents (response rate 84%) 96.6% believe that mistreatment exists. Among different types of mistreatment, verbal and academic abuse were the most commonly reported (87.9%), followed by sexual harassment (24.1%), then physical abuse (22.4%). Forty-four (75.9%) residents had advised at least one of their relatives not to join medical school.

Conclusion: Mistreatment of medical interns is an ethical issue challenging the quality of clinical training. Further research is needed to understand factors influencing mistreatment and draw guidelines to limit such problems.

Key Words: Intern, internship, mistreatment, verbal abuse, physical abuse, academic abuse, sexual harassment, Oman.

ARTICLE FOCUS

To understand factors influencing mistreatment and to draw guidelines to limit such problems

Report the experiences of mistreatment among medical trainees in Oman, an Arab/Islamic country.

KEY MESSAGES

The data suggests medical trainees in Oman perceived bullying behavior as common.

STRENGTHS AND LIMITATIONS OF THIS STUDY

Bullying behaviors have been reported in different occupational settings including the medical profession. There is a dearth of study from Arab/Islamic countries.

To our knowledge, this is the first study on the subject from this part of the world.

This study is limited by small sample size and cross-sectional study method.

INTRODUCTION:

Forms of abuse and other bullying behaviors have been reported in various occupational settings.¹⁻⁴ Studies carried out in different parts of the world suggest that the medical profession is no exception to the experience of maltreatment within institutional settings. Among various medical professionals who have reported abuse, those who are in the early phase of their careers, like interns, are the most vulnerable. According to Coverdale, Balon & Roberts the most common degrading experiences for interns were “threats, intimidation, humiliation, excessive criticism, covert innuendo, exclusion or denial of access to opportunity, undue additions to work requirements, and shifting of responsibilities without appropriate notice”(p.269).⁵

Several studies have quantified mistreatment among medical trainees or those on the lower ladder of a medical career. Steven et al.⁶ reported, in a national survey in the USA, that about 93% of medical trainees had experienced at least one episode of mistreatment. Another survey undertaken in the UK⁷, reported that around 84% of medical trainees had been bullied and about 69% had witnessed bullying and harassment during their clinical placements. Other studies from societies that are similar to Western Europe, North American, and Asia Pacific regions, have also found evidence of maltreatment such as Australia^{4, 8}, New Zealand⁹, Ireland¹⁰, Argentina¹¹ and Japan.¹²⁻¹³

Maltreatment of medical trainees is not limited to Western countries.¹⁴⁻¹⁶ Ahmer et al.¹⁷ have reported pervasive and persistent tendencies for medical trainees in Pakistan to be subjected to ‘disrespectful interactions’, ‘belittlement’, ‘undermining’ and ‘humiliation’. Drawing on available literature, Coverdale, Balon & Roberts⁵ categorized the common forms of maltreatment directed towards medical trainees as verbal abuse or humiliation, nonsexual harassment, sexual harassment, and forms of prejudice against sexual orientation or ethnicity.

There is a myriad of adverse impacts emerging as a result of trainees being subjected to maltreatment.^{18, 19} Schubert et al.²⁰ have shown a significant relationship between verbal abuse during medical training and lower levels of confidence, regardless of sex, race, age or levels of ability and temperament. Richman et al.² studied the mental health impacts for trainees who were subjected to maltreatment. There appeared to be

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disconcerting tendencies for trainees suffering maltreatment to have ‘psychopathological outcomes’ in the forms of unrelenting affective emotions, resorting to ‘self-medication’ and dependency on mind altering substances.^{21,22} This is consistent with well well-known observations that there are high levels of stress and psychological distress among medical trainees²³, which has also been suggested as playing a role in the high rate of suicide among physicians.^{25,26} There is also an indication that medical trainees who were most distressed at the beginning of their training were likely to report continuing stress and distress in the subsequent course of their lives.²⁷ According to Miedema et al.²⁸, there are inbuilt mechanisms that perpetuate abusive behavior in the medical culture, including working in what is perceived as a stressful environment. This allusion to a view that ‘abuse begets abuse’²⁹, might imply the presence of a cycle of bullying within the medical profession.

In the Arab world, including Oman, evidence abounds that much emotional distress is present among medical trainees³⁰⁻³².³³ however most of the studies are rife with conceptual limitations. Many of them have utilized assessment measures without local validity and therefore these studies fall into the ‘category of fallacy’.³⁴ Also the target population was pre-clinical students therefore generalizations cannot be applied to interns. Internship, in medical parlance, is the period in which new medical graduates practice in a hospital setting under supervision, prior to beginning a specialization. In Oman, internship consists of three to four month rotations in which each intern (resident) is rotated through the fields of general medicine, general surgery and either pediatrics or obstetrics and gynecology. Following internship in Oman further medical training is conducted under the auspices of Oman Medical Specialty Board (<http://www.omsb.org>), a government body that is responsible for postgraduate clinical training. An integral part of its function is to oversee the wellbeing of trainees through services that include a specialized office and designated person to which trainees can submit any grievance.

With evidence of adverse experiences among medical trainees or interns in other parts of the world and the fact that no data has been produced in Oman, the present study aimed to quantify mistreatment or abuse of Omani medical interns. Interrelated aims were to explore the level of mistreatment among medical trainees according to gender,

perpetrator, and specialty, as well as determine the reasons for not reporting maltreatment to the concerned authority.

METHODS AND MATERIALS:

Study Population

The study was carried out among first year medical residents following completion of internship. During the study period 2009 – 2010 a total of 69 medical residents were invited to participate. The residents were approached during a research workshop conducted in May 2010. Each participant was asked to fill out a questionnaire about their experience and perceptions of mistreatment and abuse with reference to their internship. The participants were assured in writing that the survey would be anonymous, data gathered would be aggregated, their participation was voluntary, and they could withdraw from the study at any time, without prejudice. In the event that undue distress was experienced by the participants while responding to sensitive questions, counseling support would be freely provided. The participants were asked not to discuss the questions among themselves in order to avoid peer influence.

ASSESSMENT MEASURES

The Likert-type questionnaire was adapted from those developed by Sheehan et al.²⁴ Baldwin et al.³⁵ and Uhari et al.³⁶ and focused on indexing ‘verbal abuse’, ‘physical abuse or threats’, ‘academic abuse’ and ‘sexual harassment’ (Table 1). *Physical Abuse* was defined as a threat that, if executed, would likely cause physical harm. Forms of physical abuse included slapping, pushing, hitting, kicking or having objects thrown at them. In addition, physical abuse also entailed being placed at unnecessary medical risk. *Academic Abuse* was defined as being coerced into carrying out personal services unrelated to the expected role of interns. The concept of academic abuse also encapsulated instances in which interns were excluded from reasonable learning opportunities offered to others, or threatened with failure or poor evaluations for reasons unrelated to academic performance. *Sexual Harassment* was defined as being subjected to jokes or comments against gender or body figure or being subjected to repeated leering or offered unwanted gifts with sexual underpinnings. The offer of private tutorial sessions

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3 or better grades in exchange for an illicit affair as well as inappropriate touching of a
4 sexual nature also constituted examples of sexual harassment.
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7 A variety of socio-demographic data were sought from the participants e.g. age,
8 sex, year of residency, marital status and current specialty. They were also given the
9 opportunity to describe reasons for reporting or not reporting maltreatment using free text
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12 The questionnaire was delivered to each participant in a closed envelope which
13 also contained a description of the study along with written assurance of anonymity and
14 confidentiality so that informed consent could be obtained. Participants were explicitly
15 informed not to make any reference to their identity on the questionnaire. Written consent
16 was not required as the participants were informed that return of a completed
17 questionnaire constituted consent to participate. The right not to answer a question(s) was
18 also explained.
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24 ANALYSIS

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26 Descriptive statistics (raw counts and percentages) were calculated. The free
27 narrative was assessed using thematic analysis.
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30 The study was approved by the local institutional review board (IRB), and the
31 Research and Ethics Committee of College of Medicine and Health Sciences, Sultan
32 Qaboos University (MREC#382)
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35 RESULTS

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37 The results are presented first as simple demographics of the sample and then in
38 relation to the aims of the study. The response rate was 84.2% (58/69) of which 30
39 (51.7%) were female and 28 (48.3%) were male. Their ages ranged from 25 to 35 years
40 (mean of 27.83 yrs and standard deviation of 1.63 yrs).
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44 Experience of Mistreatment according to Gender

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46 Table 1 shows experience of maltreatment according to gender. In 6 out of 12
47 items eliciting maltreatment, males dominated. However, no statistical differences were
48 found between genders on any one item. When each form of maltreatment was collapsed
49 into 'verbal abuse', 'physical abuse or threats', 'academic abuse', and 'sexual
50 harassment', the only category of statistical significance at the 95% confidence level was
51 'academic abuse' where the males reported higher levels of mistreatment ($p \leq 0.004$).
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56 Experience of Mistreatment according to Perpetrator

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As shown in Table 2, Consultants outshone others in perpetrating verbal abuse and physical abuse. They were also more likely to be guilty of academic abuse toward males, when interns ($p = 0.03$). Consultants and Specialists together were implicated in academic abuse and sexual harassment more than the other groups encountered by the participants.

Experience of Mistreatment according to Specialty

Three specialties (medicine, surgery, pediatrics) were scrutinized for variations in maltreatment to residents when they were interns. As shown in Table 3, the data can be extrapolated in three ways. Firstly, all indices of maltreatment were significantly higher during medical rotation than in pediatric or surgical rotations ($p = 0.005$). Maltreatment experienced in the pediatric rotation was second highest. Thirdly, the highest type of maltreatment reported was verbal abuse (36.8%), closely followed by academic abuse (35%).

Reasons for not reporting Maltreatment

The major reason for not reporting maltreatment elicited from the free text responses was ‘to avoid further trouble’, as the residents believed that “reporting could adversely affect evaluation and professional career.” Such behavior, out of fear, could be seen as secondary abuse. Some respondents did not know how to deal with the problem or preferred to deal with the maltreatment themselves as they “did not know whom to report to or how to make the complaint.” Seven respondents did not report the maltreatment because the perpetrator had “apologized” to them. It was not uncommon deny the experience as abuse “at the time it happened.”

DISCUSSION

To our knowledge the present research is the first, in Arab countries, to describe four interrelated patterns in relation to maltreatment, from the experience of first year medical residents concerning their internship i.e. gender of the victim, types of maltreatment, specialty rotation where maltreatment occurred, and reasons for not reporting maltreatment. Although the intended population was small, the rate of response to the survey was high and the gender distribution of participants was fairly balanced. Most of the participants were undertaking a medical specialty and were in their late

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twenties. Pending further scrutiny this study could be viewed as a pilot. However, the
survey indicates alarming rates of maltreatment in the observed cohort. On the whole, the
findings substantiate the view of other researchers that maltreatment is prevalent during
medical training.^{6, 7, 20, 37-38}

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One of the aims of this study was to examine whether there was a gender
difference in perceived maltreatment. Maltreatment and sexual abuse (that is abuse of a
personal nature) is a global pattern seen among working women,³⁹ including female
doctors.^{40,41} In the present study the results suggest there was no statistically significant
differences per gender although young female doctors were more likely to experience
threats and sexual harassment. It is not clear why the present cohort appears to ostensibly
differ from trends commonly observed elsewhere. It is possible that gender segregation, a
common social prescription in the region, may have shielded females from being
subjected to maltreatment. In traditional Omani society gender segregation has been
suggested to have been socio-culturally sanctioned in order to enhance female safety.⁴² It
is also possible that, due to the trajectory of modernity and female empowerment, trends
may be shifting. There is an indication that growing affluence in Oman is narrowing the
traditional gender gap commonly found in patriarchal societies. Drawing on data from the
Oman Ministry of Health, Alshishtawy⁴³ indicated that approximately 60% of the health
workforce in Oman were female. Accordingly, “women outnumbered men in all medical
and health categories” and “feminisation” of the medical/health sciences professions in
Oman has reversed the male dominance of past years” [p.273]. Therefore, the
preponderance of females in the healthcare sectors in Oman might play an instrumental
role in moderating the stereotypical picture of senior males abusing junior females.

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The second interrelated aim of the present quest was to shed light on the
perpetrators of maltreatment. The present descriptive data unequivocally implicated those
in the top echelon, such as consultants and specialists, in perpetrating academic abuse and
sexual harassment. Studies elsewhere suggest that maltreatment often comes from
nonmedical staff, but according to Hinze⁴⁴ and Ahmeret al.¹⁷ senior medical staff were not
innocent. This current preliminary study suggests that hierarchy is strongly associated
with the propensity to dispense abuse. It is possible that such occurrences stem from
cultural patterning. While social institutions in Western Europe and North American

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3 countries have explicitly made corporal punishment, as retribution for academic
4 misbehavior, unacceptable (a view enshrined in legal and judicial systems), some reports
5 have noted that occurrences of aggressive acts toward junior doctors still happen.⁴⁵ It is
6 possible that senior members, traditional teachers, or father-figures, demand filial
7 obedience from students (in this case junior doctors). However, notwithstanding such a
8 view, it does appear that maltreatment of novices in the medical profession remains in
9 many societies including those that do not prescribe to the cultural patterning common in
10 Oman.^{4,46} Therefore, factors within the medical culture itself need to be explored in order
11 to devise evidence-based interventions to mitigate senior members abusing the junior
12 ones.
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21 Knowing which type of abuse comes from which source enables educators to
22 focus their resources on preventing maltreatment although Cook, Liutkusand Risdon⁴⁷
23 have suggested that there is no ‘magic-bullet’ to mitigate the prevailing maltreatment of
24 medical trainees. A possible strategy, however, would be to institute mandatory courses
25 for medical staff on awareness about the consequences of abuse and maltreatment.
26 Medical schools and health care systems should also have inbuilt mechanisms where
27 victims of abuse can air their grievances confidentially without consequently jeopardizing
28 their careers.
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35 There are some obvious caveats to mention regarding this study. The data present
36 residents’ self-responses. Such a method of eliciting information has methodological
37 deficits. Self-serving biases are well known in self report studies.⁴⁸ It is also possible that
38 recall bias could have contaminated responses.⁴⁹ An integral part of recall bias is that
39 when individuals find certain events as emotional debilitating, the recourse is often to
40 repress the memory of those events. Future studies should have an in-built mechanism to
41 reduce the likelihood of recall bias. Secondly, some insidious cultural factors are likely to
42 factor in the present study. The Omani culture is known to be a culture of honor and
43 ‘shame’, which means that many of life’s maltreatments are ‘concealed’.⁵⁰ Despite the
44 anonymous nature of the present study, it is possible that incidences of sexual harassment
45 or maltreatment were ‘denied’ resulting in spurious data. Regardless of the above-
46 mentioned caveats, interesting issues have emerged from the present study that need to be
47 followed up in a wider context. Finally, the lack of qualitative data in a
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3 phenomenological study of perceived experience is likely to represent a major limitation
4 of this study in particular in a population where such studies have not yet been
5 forthcoming. Therefore, in studies eliciting perceived experiences on cross-cultural
6 samples, inclusion of qualitative research methodology such as interviews are likely to
7 yield more fruitful results.⁵⁰ Such undertaking would have laid the groundwork for more
8 meaningful quantitative research instruments. Thereby, the present finding could be
9 scrutinized with studies that have included some interviews or focus groups so that the
10 participants' interpretations could be explored in depth.
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18 Finally, the lack of qualitative data may represent a major limitation in particular
19 where such studies have not been undertaken before. Studies eliciting perceived
20 experiences on cross-cultural samples, benefit from the inclusion of qualitative research
21 methods such as interviews or focus groups which yield more in-depth findings⁵⁰ and can
22 lay the groundwork for developing more meaningful quantitative research instruments. If
23 the present study had included some interviews or focus groups, so that the participants'
24 interpretations could be explored in depth, a greater understanding of the phenomenon
25 could have been explicated and compared with other studies of a similar nature.
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32 33 34 **CONCLUSION**

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37 Mistreatment of medical interns is emerging as a global challenge. To our
38 knowledge, this is the first study from the Arabian Gulf that explores maltreatment and
39 abuse in a medical setting. Fifty eight residents (84%) consented to participate in this
40 survey concerning their experiences as interns. Males experienced higher levels of
41 mistreatment than females. In terms of the perpetrator, hierarchy appeared to dominate,
42 as those who were commanding higher positions were more likely to commit
43 maltreatment and abuse. Problems also appeared more widespread in the sub-specialty of
44 medicine. The findings from this pilot study should encourage further identification of
45 factors that perpetuate maltreatment and abuse among medical interns. More extensive
46 research is needed, however, to understand those factors in order to draw up guidelines
47 that will limit such problems and provide evidence based interventions appropriate for the
48 context of Oman.
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Participant consent: Obtained.

Ethics approval: Ethics approval was provided by the local institutional review board (IRB), Research and Ethics Committee of College of Medicine and Health Sciences, Sultan Qaboos University (MREC#382)

Conflict of interest: none

Contributors

M-AS is responsible for study supervision, T-AK and Y-AF are responsible for study concept and design and data collection, A-AM is responsible for integrity of the data and the accuracy of the data analysis and GW, H-AS and S-AA were responsible for drafting the literature review and scientific approach to the write-up.

REFERENCES:

1. Borg MG. The extent and nature of bullying among primary and secondary schoolchildren. *Educ Res* 1999; 41:137-53.
2. Richman JA, Rospenda KM, Nawyn SJ, F et al. Sexual harassment and generalized workplace abuse among university employees: Prevalence and mental health correlates. *Am J Public Health* 1999; 89:358-63.
3. Maida AM, Vasquez A, Herskovic V, et al. A report on student abuse during medical training. *Med Teach* 2003; 25:497-501.
4. White GE: Sexual harassment during medical training: the perceptions of medical students at a university medical school in Australia. *Med Educ* 2000; 34:980-86.
5. Coverdale JH, Balon R, Roberts LW. Mistreatment of trainees: verbal abuse and other bullying behaviors. *Acad Psychiatry* 2009; 33:269-73.
6. Daugherty SR, Baldwin DC Jr, Rowley BD. Learning, satisfaction, and mistreatment during medical internship: a national survey of working conditions. *JAMA* 1998; 279:1194-9.
7. Quine L. Workplace bullying in junior doctors: questionnaire survey. *BMJ* 2002; 324:878-9.

- 1
- 2
- 3
- 4
- 5 8. Askew DA, Schluter PJ, Dick ML, et al. Bullying in the Australian medical
6 workforce: cross-sectional data from an Australian e-Cohort study. *Aust Health*
7 *Rev* 2012; 36:197-204.
- 8
- 9 9. Scott J, Blanshard C, Child S. Workplace bullying of junior doctors: cross-
10 sectional questionnaire survey. *N Z Med J* 2008 Sep 22; 121:10-4.
- 11
- 12 10. Finucane P, O'Dowd T. Working and training as an intern: a national survey of
13 Irish interns. *Med Teach* 2005; 27:107-13.
- 14
- 15 11. Mejía R, Diego A, Alemán M, et al. Perception of mistreatment during medical
16 residency training. *Medicina (B Aires)* 2005; 65: 295-301.
- 17
- 18 12. Nagata-Kobayashi S, Maeno T, Yoshizu M, et al. Universal problems during
19 residency: abuse and harassment. *Med Educ* 2009; 43:628-36.
- 20
- 21 13. Nagata-Kobayashi S, Sekimoto M, Koyama H, et al. Medical student abuse
22 during clinical clerkships in Japan. *J Gen Intern Med* 2006; 21:212-8
- 23
- 24 14. Yildirim D, Yildirim A, Timucin A. Mobbing behaviors encountered by nurse
25 teaching staff. *Nurs Ethics* 2007; 14:447-63.
- 26
- 27 15. Bairy KL, Thirumalaikolundusubramanian P, Sivagnanam G, et al. Bullying
28 among trainee doctors in Southern India: a questionnaire study. *J Postgrad Med*
29 *2007; 53:87-90.*
- 30
- 31 16. Imran N, Jawaid M, Haider II, et al. Bullying of junior doctors in Pakistan: a
32 cross-sectional survey. *Singapore Med J* 2010; 51: 592-95.
- 33
- 34 17. Ahmer S, Yousafzai AW, Siddiqi M, et al. Bullying of trainee psychiatrists in
35 Pakistan: a cross-sectional questionnaire survey. *Acad Psychiatry* 2009; 33:335-
36 39.
- 37
- 38 18. Dyrbye LN, Harper W, Moutier C, Durning SJ, Power DV, Massie F, et al. A
39 multi-institutional study exploring the impact of positive mental health on medical
40 students' professionalism in an era of high burnout. *Acad Med* 2012; 87: 1024-
41 1031.
- 42
- 43 19. Dyrbye LN, Massie FS Jr, Eacker A, Harper W, Power DV, Durning S, Thomas
44 MR, Moutier C, Satele D, Sloan JA, Shanafelt TD. 'Relationship between
45 Burnout and Professional Conduct and Attitudes among US Medical Students'.
46 *JAMA*, 2010; 304:1173-1180.
- 47
- 48 20. Schuchert MK. The relationship between verbal abuse of medical students and
49 their confidence in their clinical abilities. *Acad Med* 1998; 73: 907-9.
- 50
- 51
- 52
- 53
- 54
- 55
- 56
- 57
- 58
- 59
- 60

- 1
- 2
- 3
- 4
- 5
- 6 21. Dyrbye LN, Thomas MR, Massie FS, Power DV, Eacker A, Harper W, Durning S, Shanafelt TD. Burnout and suicidal ideation among U.S. medical students. *Ann Intern Med* 2008; 149: 334-341.
- 7
- 8
- 9
- 10 22. Bhan, A. Substance abuse among medical professionals: A way of coping with
- 11 job dissatisfaction and adverse work environments. *Indian J Med Sci* 2009; 63:
- 12 308-309.
- 13
- 14
- 15 23. Dyrbye LN, Thomas MR, Shanafelt TD. Medical student distress: causes,
- 16 consequences, and proposed solutions. *Mayo Clin Proc* 2005; 80:1613-22.
- 17
- 18
- 19 24. Sheehan KH, Sheehan DV, White K, et al A pilot study of medical student
- 20 'abuse'. Student perceptions of mistreatment and misconduct in medical school.
- 21 *JAMA* 1990; 263:533-37.
- 22
- 23 25. Aasland OG, Hem E, Haldorsen T, et al. Mortality among Norwegian doctors
- 24 1960-2000. *BMC Public Health* 2011; 11:173.
- 25
- 26
- 27 26. Petersen MR, Burnett CA. The suicide mortality of working physicians and
- 28 dentists. *Occup Med (Lond)* 2008; 58: 25-29.
- 29
- 30 27. Tartas M, Walkiewicz M, Majkiewicz M, et al. Psychological factors determining
- 31 success in a medical career: a 10-year longitudinal study. *Med Teach* 2011; 33:
- 32 e163-72.
- 33
- 34
- 35 28. Miedema B, MacIntyre L, Tatemichi S, et al. How the medical culture contributes
- 36 to coworker-perpetrated harassment and abuse of family physicians. *Ann Fam*
- 37 *Med* 2012; 10: 111-17.
- 38
- 39
- 40 29. Al-Adawi S, Al-Bahlani S Domestic violence: "What's love got to do with it?".
- 41 *Sultan Qaboos Univ Med J.* 2007;7:5-14.
- 42
- 43 43. Ahmed I, Banu H, Al-Fageer R, et al. Cognitive emotions: Depression and
- 44 anxiety in medical students and staff. *J Crit Care* 2009; 24:e1-7.
- 45
- 46
- 47 47. Al-Saleh SA, Al-Madi EM, Al-Angari NS, et al. Survey of perceived stress-
- 48 inducing problems among dental students, Saudi Arabia. *Saudi Dent J* 2010;
- 49 22:83-8.
- 50
- 51
- 52 52. Al-Dabal BK, Koura MR, Rasheed P, et al. A comparative study of perceived
- 53 stress among female medical and non-medical university students in Dammam,
- 54 Saudi Arabia. *Sultan Qaboos Univ Med* 2010; 10:231-40.
- 55
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 - 58
 - 59
 - 60
33. Al-Busaidi Z, Bhargava K, Al-Ismaily A, et al. Prevalence of Depressive Symptoms among University Students in Oman. *Oman Med J* 2011; 26:235-39.
34. Al-Adawi SS. Re: Comparative study of Perceived Stress among Female Medical and Non-Medical University Students in Damman, Saudi Arabia. *Sultan Qaboos Univ Med J* 2010; 10:410-11.
35. Baldwin DC Jr, Daugherty SR, Eckenfels EJ: Student perceptions of mistreatment and harassment during medical school: a survey of ten United States schools. *West J Med* 1991, 155:140-145.
36. Uhari M, Kokkonen J, Nuutinen M, Vainionpää L, Rantala H, Lautala P, Väyrynen M: Medical student abuse: An international phenomenon. *JAMA* 1994, 271:1049-1051.
37. Einarsen S, Raknes BI: Harassment in the workplace and the victimization of men. *Violence Vict* 1997; 12:247-63.
38. Richman JA, Flaherty JA, Rospenda KM, et al. Mental health consequences and correlates of reported medical student abuse. *JAMA* 1992; 267:692-4.
39. Eloul L, Ambusaidi A, Al-Adawi S. Silent Epidemic of Depression in Women in the Middle East and North Africa Region: Emerging tribulation or fallacy? *Sultan Qaboos Univ Med J* 2009; 9: 5-15.
40. Nora LM, McLaughlin MA, Fosson SE, et al. Gender discrimination and sexual harassment in medical education: perspectives gained by a 14-school study. *Acad Med* 2002; 77:1226-34.
41. Larsson C, Hensing G, Allbeck P: Sexual and gender-related harassment in medical education and research training: results from a Swedish survey. *Med Educ* 2003, 37:39-50.
42. Wikan U. *Behind the Veil in Arabia: Women in Oman*. Chicago: University of Chicago Press, 1991.
43. Alshishtawy M. Re: Afghanistan and Oman: Personal reflections on a profound contrast. *Sultan Qaboos Univ Med J* 2010;10:272-275.
44. Hinze SW. 'Am I being over-sensitive?' Women's experience of sexual harassment during medical training. *Health (London)* 2004; 8:101-27.
45. Madhiwalla N, Roy N. Assaults on public hospital staff by patients and their relatives: an inquiry. *Indian J Med Ethics* 2006, 3; 51-54.

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46. Moscarello R, Margittai KJ, Rossi M. Differences in abuse reported by female and male Canadian medical students. *Can Med Assoc J* 1994; 150: 357-63.
47. Cook DJ, Liutkus JF, Risdon CL, et al. Residents' experiences of abuse, discrimination and sexual harassment during residency training. McMaster University Residency Training Programs. *Can Med Assoc J* 1996; 154:1657-65.
48. Mezulis AH, Abramson LY, Hyde JS, Hankin BL. Is there a universal positivity bias in attributions? A meta-analytic review of individual, developmental, and cultural differences in the self-serving attributional bias. *Psychol Bull* 2004; 130:711-47.
49. Coughlin SS. Recall bias in epidemiologic studies. *J Clin Epidemiol* 1990; 43:87-91.
50. Dwairy M, Van Sickle T.D. Western psychotherapy in traditional Arabic societies. *Clin Psychol Rev.* 1996; 16: 231-49.
51. Al-Adawi S, Al-Busaidi Z, Al-Adawi SS, Burke DT. Families Coping With Disability Due to Brain Injury in Oman: Attribution to Belief in Spirit Infestation and Ensorcellment. *SAGE Open* July-September 2012: 1-8 DOI: 10.1177/2158244012457400.

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Table 1: Medical trainee reporting different types of mistreatment according to sex

	♂+♀ (N=58)	♂(N=28)	♀(N=30)
VERBAL ABUSE			
Shouted at you	29 (50%)	14 (50%)	15 (50%)
Belittled or humiliated you during meetings or rounds	32 (55.2%)	17 (60.7%)	15 (50%)
Spoken to you un-respectfully	27 (46.6%)	13 (46.4%)	14 (46.7%)
PHYSICAL ABUSE OR THREATS			
Threatened you with physical harms	7 (12.1%)	3 (10.7%)	4 (13.3%)
ACADEMIC ABUSE			
You were asked to carry out some personal services unrelated to patient care or educational activities	17 (29.3%)	10 (35.7%)	7 (23.3%)
Your questions/queries were intentionally not answered	17 (29.3%)	11 (39.3%)	6 (20.0%)
You were forced to refer patient without providing reasonable cause for referral	30 (51.7%)	15 (53.6%)	15 (50%)
You were asked to take consent from very complicated cases	27 (46.6%)	16 (57.1%)	11 (36.7%)
You were threatened with failure or giving poor evaluations for reasons unrelated to your academic performance	15 (25.9%)	11 (39.3%)	4 (13.3%)
SEXUAL HARASSMENT			
Received jokes or comments against your gender (M/F)	9 (15.5%)	5 (17.9%)	4 (13.3%)
Received compliments or comments about your body or figure	7 (12.1%)	2 (7.1%)	5 (16.7%)
Faced with an offensive body language (e.g. repeated leering, standing too close)	7 (12.1%)	1 (3.6%)	6 (20.0%)

♂= Male

♀= Female

Table 2: Medical trainees reporting different types of mistreatments according to sources/perpetrators

	Verbal Abuse			Physical Abuse			Academic Abuse			Sexual harassment		
	♂	♀	Total	♂	♀	Total	♂	♀	Total	♂	♀	Total
Consultants	21 (75%)	17 (56.7%)	38 (65.5%)	4 (14.3%)	3 (10%)	7 (12.1%)	18 (64.3%)	11 (36.7%)	29 (50%)	4 (14.3%)	5 (16.7%)	9 (15.5%)
Specialists	9 (32.1%)	10 (33.3%)	19 (32.8%)	1 (3.6%)	2 (6.7%)	3 (5.2%)	16 (57.1%)	14(46.7%)	30 (51.7%)	4 (14.3%)	6 (20%)	10 (17.2%)
Resident	4 (14.3%)	1 (3.3%)	5 (8.6%)	0	0	0	3 (10.7%)	4 (13.3%)	7 (12.1%)	2 (7.1%)	1(3.3%)	3 (5.2%)
Nurses	6 (21.4%)	12(40%)	18 (31%)	1 (3.6%)	4(13.3%)	5 (8.6%)	7 (25%)	7 (23.3%)	14 (24.1%)	2 (7.1%)	0	2 (3.4%)
Patients/ Relative	5 (17.9%)	7(23.3%)	12 (20.7%)	1 (3.6%)	2(6.7%)	3 (5.2%)	2 (7.1%)	2 (6.7%)	4 (6.9%)	1 (3.6%)	1 (3.3%)	2 (3.4%)
Others	1 (3.6%)	2(6.7%)	3 (5.2%)	0	0	0	1 (3.6%)	0	1 (1.7%)	0	0	0

♂= Male

♀= Female

Table 3: Medical Trainee Reporting Mistreatment according to Specialty

	ALL (n=58)	MEDICINE	SURGERY	PEDIATRICS
<i>VERBAL ABUSE</i>		32(55.2%)	17(29.3%)	15(25.9%)
Shouted at you	29 (50%)	20(62.5%)	11(64.7%)	9(60%)
Belittled or humiliated you during meetings or rounds	32 (55.2%)	21(65.6%)	10(58.8%)	13(86.7%)
Spoke to you un-respectfully	27 (46.6%)	18(56.2%)	8(47.1%)	11(73.3%)
<i>PHYSICAL ABUSE OR THREATS</i>		11(19%)	1(1.7%)	3(5.2%)
Threatened you with physical harms	7 (12.1%)	11(100%)	1 (100%)	3 (100%)
<i>ACADEMIC ABUSE</i>		35(60.3%)	17(29%)	9(15.5%)
You were asked to carry out some personal services unrelated to patient care or educational activities	17 (29.3%)	13(37.1%)	7(41.2%)	5(55.6%)
Your questions/queries were intentionally not answered	17 (29.3%)	10(28.6%)	9(52.9%)	3(33.3%)
You were forced to refer patient without providing reasonable cause for referral	30 (51.7%)	21(60%)	11(64.7%)	5(55.6%)
You were ask to take consent from very complicated cases	27(46.6%)	20(57.1%)	10(58.8%)	4(44.4%)
You were threatened with failure or giving poor evaluations for reasons unrelated to your academic performance	15(25.9%)	10(28.6%)	4(23.5%)	5(55.6%)
<i>SEXUAL HARASSMENT</i>		10(17.2%)	7(12.1%)	4(6.9%)
Received jokes or comments against your gender (M/F)	9 (15.5%)	5(50%)	5(71.4%)	2(50%)
Received compliments or comments about your body or figure	7 (12.1%)	4(40%)	3(42.9%)	1(25%)
Faced with an offensive body language (e.g. repeated leering, standing too close)	7 (12.1%)	6(60%)	1(14.3%)	2(50%)

Table 4: Medical trainees' narrative for either reporting reason or not reporting maltreatment

Reason/s for not reporting such abuse	%
1. I did not recognize the experience as an abuse at the time that it happened	N=19/58 (32.8%)
2. It was not significant to be reported to those in authority	N=19/58 (32.8%)
3. Reporting such abuse or mistreatment would not accomplish anything	N=24/58 (41.4%)
4. Reporting such mistreatment or abuse would become more troublesome than it was worth	N=25/58 (43.1%)
5. I dealt with the problem directly myself	N=13/58 (22.4%)
6. I did not know to whom I should report or how to complain	N=10/58 (17.2%)
7. I was afraid that reporting such abuse would adversely affect my evaluation or my professional career in future	N=24/58 (41.4%)
8. The abuser apologized to me	N=7/58 (12.1%)
9. I was afraid of not being believed or the problem would not be dealt fairly	N=8/58 (13.8%)
10. I was afraid that the reporting would not be kept confidential	N=17/58 (29.3%)

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<p>You refer to 'anonymous' reviewers in your cover letter - I hope you saw that at no point were the reviewers anonymous. Their names were included in the letters next to their reviews.</p>	<p>That was an error so it would be clarified in all other communications.</p>
<p>The language in the paper still needs to be checked, probably by a native English speaker. For example you state: 'It is possible that gender segregation, a common social prescription in the region, may have insidiously shielded female from being subjected to maltreatment.' I'm not sure that insidious is the best way here, as it's generally thought of in the first sense here: http://www.merriam-webster.com/dictionary/insidious</p>	<p>A help from native speaker was sought.</p>
<p>In the abstract the results say 'Of 58 residents (response rate 84%) around 96.6%' but 96.6% is sufficiently precise that you don't need to say 'around'.</p>	<p>Done as suggested</p>
<p>The key message states 'The data suggests bullying behavior is rampant among medical trainees in Oman' - but you were measuring perceptions, not actual behaviour, so this message needs to be more subtle. A less emotive term than 'rampant' would also be more appropriate. There are other examples, so I suggest that a native English speaker should be involved in editing the paper to an appropriate standard. The help that you receive should be acknowledged in the acknowledgements section.</p>	<p>The sentence has been revised as suggested</p>
<p>Also, is this the only medical school in Oman?</p>	<p>The participants were part of "Oman Medical Specialty Board" (OMSB). This is a residents program. In Oman, OMSB is a separate entity and not part of medical schools.</p>

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Pilot study on the prevalence of abuse and mistreatment during clinical internship: a cross-sectional study among first year residents in Oman

Mohammed Al-Shafee¹, Yousuf Al-Kaabi¹, Yousuf Al-Farsi¹, Gillian White²,
Abdullah Al-Maniri¹, Hamed Al-Sinawi² and Samir Al-Adawi²

¹ Department of Family Medicine and Public Health, College of Medicine and Health Sciences, Sultan Qaboos University, Muscat, Oman

² Directorate of Education and Training, Ministry of Health, Oman

³ Department of Behavioral Medicine, College of Medicine and Health Sciences, Sultan Qaboos University, Muscat, Oman

Correspondence to:

Dr. Samir Al-Adawi,
Department of Behavioral Medicine,
College of Medicine and Health Sciences,
Sultan Qaboos University, P.O. Box 35,
Al-Khoudh 123, Muscat,
Sultanate of Oman

Telefax: + 968 24545203
Telephone: + 968 24141139
E-mail: adawi@squ.edu.om;
jimbo@omantel.net.om
samir-al-adawi@fulbrightmail.org

Abdullah Al-Maniri (almaniri@gmail.com)
Gillian White (drgillianwhite@yahoo.co.nz)
Hamed Al-Sinawi [hamad.senawi@gmail.com]
Mohammed Al-Shafee (shafae4@omantel.net.om)
Samir Al-Adawi (samir-al-adawi@fulbrightmail.org)
Yousuf Al-Farsi (dr.yousufalkaabi@gmail.com)
Yousuf Al-Kaabi (dryousufalfarsi@gmail.com)

ABSTRACT

Objective: To evaluate perceptions of being mistreated during internship among first year Oman Medical Specialty Board residents.

Design: A cross-sectional study

Setting: Training centers for Oman Medical Specialty Board

Participants: First year medical residents following completion of internship. ~~During~~ during the study period 2009 – 2010

Method: A cross-sectional survey of ~~69~~ first year ~~Medical~~medical residents

Results: Of 58 residents (response rate 84%) ~~around~~ 96.6% ~~believed~~believe that mistreatment exists. Among different types of mistreatment, verbal and academic abuse ~~was~~were the most commonly reported (87.9%), followed by sexual harassment (24.1%), then physical abuse (22.4%). Forty-four (75.9%) residents had advised at least one of their relatives not to join medical school.

Conclusion: Mistreatment of medical interns is an ethical issue challenging the quality of clinical training. Further research is needed to understand factors influencing mistreatment and draw guidelines to limit such problems.

Key Words: Intern, internship, mistreatment, verbal abuse, physical abuse, academic abuse, sexual harassment, Oman.

ARTICLE FOCUS

To understand factors influencing mistreatment and to draw guidelines to limit such problems

Report the experiences of mistreatment among medical trainees in Oman, an Arab/Islamic country.

KEY MESSAGES

The data suggests [medical trainees](#) in Oman [perceived](#) bullying behavior [as common](#) ~~is rampant among medical trainees in Oman.~~

STRENGTHS AND LIMITATIONS OF THIS STUDY

Bullying behaviors have been reported in different occupational settings including the medical profession. There is [a](#) dearth of study from Arab/Islamic countries.

To our knowledge, this is the first study on ~~this endeavor~~ [the subject](#) from this part of the world.

This study is limited ~~with~~ [by](#) small sample size and ~~its~~ cross-sectional study ~~methodology~~ [method](#).

INTRODUCTION:

Forms of abuse and other bullying behaviors have been reported in various occupational settings.¹⁻⁴ ~~Studies~~ Studies carried out in different parts of the world suggest that the medical professionals ~~are~~ profession is no exception to the experience of maltreatment within institutional settings. Among various medical professionals who have reported abuse, those who are in the early phase of their careers, like interns, are the most vulnerable. According to Coverdale, Balon & Roberts the most common degrading experiences amongfor interns ~~include~~ were “threats, intimidation, humiliation, excessive criticism, covert innuendo, exclusion or denial of access to opportunity, undue additions to work requirements, and shifting of responsibilities without appropriate notice” (p.269).⁵

~~Studies~~ Several studies have quantified mistreatment among medical trainees or those ~~who are~~ on the lower ladder of a medical career. Steven et al.⁶ ~~reported~~ reported, in a national survey in the USA, that about 93% of medical trainees ~~endorsed the view that they have~~ had experienced at least one experienceepisode of mistreatment. Another survey undertaken in the UK⁷, reported that around 84% of medical trainees ~~havehad~~ been bullied and about 69% had witnessed bullying and harassment during their clinical placements. Other studies from societies that are similar to Western Europe, North American, and Asia Pacific regions, have also found evidence of maltreatment including such as Australia^{4, 8} New Zealand⁹ Ireland¹⁰, Argentina¹¹ and Japan.¹²⁻¹³

Maltreatment of medical trainees is not limited to Western countries.¹⁴⁻¹⁶ ~~Ahmer~~ Ahmer et al.¹⁷ ~~have~~ have reported pervasive and persistent tendencies for medical trainees in Pakistan to be subjected to ‘disrespectful interactions’, ‘belittlement’, ‘undermining’ and ‘humiliation’. Drawing ~~fromon~~ available literature, Coverdale, Balon & Roberts⁵ ~~have~~ categorized the common forms of maltreatment directed towards medical trainees as verbal abuse or humiliation, nonsexual harassment, sexual harassment, and forms of prejudice against sexual orientation ~~and or~~ ethnicity.

There is a myriad of adverse impacts ~~of mistreatment that can emerge~~ emerging as a result of trainees being subjected to maltreatment.^{18, 19} Schubert et al.²⁰ ~~have~~ have shown a significant relationship between verbal abuse during medical training and lower

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3 levels of confidence, regardless of sex, race, age or levels of ability and temperament.
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5 Richman et al.² studied the mental health ~~consequences among impacts for~~ trainees who
6 were subjected to maltreatment ~~with disconcerting findings~~. There appeared to be
7 disconcerting tendencies for ~~maltreated~~ trainees suffering maltreatment to have
8 'psychopathological outcomes' in the ~~form forms~~ of unrelenting affective emotions,
9 resorting to 'self-medication' and ~~even~~ dependency on mind altering substances.^{21,22} This
10 is ~~consonant consistent~~ with well well-known observations that there are high levels of
11 stress and psychological distress among medical ~~trainees~~.^{23,24} ~~Such prevailing situations~~
12 ~~havetrainees~~²³, which has also been suggested ~~to play as playing~~ a role in the ~~observed~~
13 higher high rate of suicide among physicians ~~compared to the general population~~.^{25,26}
14 There is also an indication that medical trainees who were most distressed at the
15 beginning of their training, ~~and~~ were likely to report more continuing stress and distress
16 in the subsequent course of their lives.²⁷ ~~According~~²⁷ According to Miedema et al.²⁸, there
17 are inbuilt mechanisms that perpetuate abusive behavior in the medical culture, including
18 working in what is perceived as a stressful environment. This ~~is suggestion~~ allusion to a
19 view that 'abuse begets abuse'²⁹, ~~a view that~~ might imply the presence of a cycle of
20 bullying in within the medical profession.

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23 In the Arab world, including Oman, evidence abounds that much emotional
24 distress is present among medical trainees³⁰⁻³² ~~including Oman~~.³³ ~~Although these Arabian~~
25 ~~studies should be enlightening, however~~ most of ~~them the studies~~ are rife with conceptual
26 limitations. Many of them have utilized assessment measures without local validity and
27 therefore these studies fall into the 'category of fallacy'.³⁴ ~~These studies could also be~~
28 ~~criticized on~~ Also the ~~ground that their~~ target population was pre-clinical students.
29 ~~Therefore therefore~~ generalizations cannot be applied to interns. Internship, in medical
30 parlance ~~of the medical profession~~, is the period in which new medical graduates learn
31 ~~medical practices practice~~ in a hospital setting under supervision, prior to beginning ~~his or~~
32 ~~her a~~ specialization. In Oman, internship consists of three to four month rotations, in
33 which each intern (resident) is rotated through the fields of general medicine, general
34 surgery and either pediatrics or obstetrics and gynecology. Following internship in Oman,
35 further medical training is conducted under the auspices of Oman Medical Specialty
36 Board (<http://www.omsb.org>), a governmental government body that is responsible for
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3 postgraduate clinical training. An integral part of its function is to oversee the wellbeing
4 of trainees; through services that include a specialized office and designated person to
5 which trainees can submit any grievance.
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9 With evidence ~~of~~ adverse experiences among medical trainees or interns in other
10 parts of the world and the fact that no data has been ~~forthcoming from~~ produced in Oman,
11 the present study aimed to quantify mistreatment or abuse among of Omani medical
12 interns. Interrelated aims were to explore the level of mistreatment among medical
13 trainees according to gender, perpetrator, and specialty, as well as ~~gauge to~~ determine the
14 reasons for not reporting maltreatment; to the concerned authority.
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20 21 **METHODS AND MATERIALS:**

22 **Study Population**

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24 The study was carried out among first year medical residents following
25 completion of internship. During the study period 2009 – 2010 a total of 69 medical
26 residents were invited to participate ~~in this study.~~ The residents were approached ~~to~~
27 ~~participate in this study~~ during a research workshop conducted in May 2010. Each
28 participant was asked to fill ~~in~~ out a questionnaire about their experience and perceptions
29 of mistreatment and abuse with reference to their internship. ~~In the cover letter with~~ The
30 participants were assured in writing that the survey, ~~it was indicated to the participants~~
31 ~~that this was~~ would be anonymous ~~survey and, data gathered would be aggregated,~~ their
32 participation was ~~entirely~~ voluntary ~~and data gathered would be kept confidential,~~ and
33 they ~~may~~ could withdraw ~~any~~ from the study at any time, without prejudice ~~at any time.~~ In
34 ease. In the event that undue distress was experienced by the participants ~~incur any undue~~
35 ~~distress while contemplating on the items of the questionnaire, mental health~~ responding
36 to sensitive questions, counseling support ~~will~~ would be ~~duly~~ freely provided. The
37 participants were asked not to discuss the ~~questionnaire~~ questions among themselves in
38 order to avoid peer influence.
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52 **ASSESSMENT MEASURES**

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54 The Likert-type questionnaire was adapted from those developed by Sheehan et
55 al.²⁴ ~~Baldwin~~ Baldwin et al.³⁵ ~~and Uhari et~~ and Uhari et al.³⁶ and focused on indexing
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‘verbal abuse’, ‘physical abuse or threats’, ‘academic abuse’ and ‘sexual harassment’ (Table 1). *Physical Abuse* ~~is was~~ defined as a threat that, if executed, would likely cause physical harm. ~~Other forms~~Forms of physical abuse, ~~such as, included~~ slapping, pushing, hitting, kicking or having objects thrown at ~~the interns are an integral part of the present definition of them. In addition,~~ physical abuse. ~~Physical abuse~~ also ~~entails~~entailed being placed at unnecessary medical risk. *Academic Abuse* ~~is was~~ defined as ~~coercion to carry being coerced into carrying~~ out ~~some~~ personal services unrelated to the expected role of interns. The concept of academic abuse also ~~encapsulates~~encapsulated instances in which interns ~~being were~~ excluded from ~~otherwise~~ reasonable learning opportunities offered to others, or ~~are~~ threatened with failure or poor evaluations for reasons unrelated to ~~one’s~~ academic performance. *Sexual Harassment* ~~is was~~ defined ~~in the following terms: as~~ being subjected to jokes or comments against ~~one’s~~ gender or body figure. ~~Sexual harassment entails or~~ being subjected to repeated leering or offered unwanted gifts. ~~Being offered with sexual underpinnings. The offer of~~ private tutorial sessions or better grades in exchange for an ~~extra-marital~~illicit affair as well as inappropriate touching of a sexual nature ~~constitute also constituted~~ examples of sexual harassment.

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~~Various~~A variety of socio-demographic ~~information (e.g. data were sought from the participants e.g. age, sex, year of residency, marital status and current specialty) was also sought from the consenting participants. The participants. They~~ were also given the ~~option to use free text opportunity~~ to describe reasons for reporting or not reporting maltreatment. ~~using free text~~

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The questionnaire was delivered to each participant in a closed envelope, which also contained a description of the study, along with ~~a statement of~~written assurance of anonymity and confidentiality so that informed consent could be obtained. ~~To assure anonymity, participants~~Participants were explicitly informed not to make any reference to their identity on the questionnaire. ~~Written consent was not required as the participants were informed that return of a completed questionnaire constituted consent to participate. The right not to answer a question(s) was also explained.~~

53 ANALYSIS

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3 Both ~~descriptive~~ Descriptive statistics as ~~(raw counts and percentage are~~
4 presented ~~percentages)~~ were calculated. The free narrative was assessed using thematic
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6 analysis.

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9 The study was approved by the local institutional review board (IRB), and the
10 Research and Ethics Committee of College of Medicine and Health Sciences, Sultan
11 Qaboos University (MREC#382)

14 RESULTS

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16 The results are presented first as simple demographics of the sample and then in
17 relation to the aims of the study. The response rate was 84.2% (58/69 ~~residents~~) of which
18 30 (51.7%) were female and 28 (48.3%) were male. Their ages ranged from 25 to 35
19 years (mean of 27.83 yrs and standard deviation of 1.63 yrs).

23 Experience of Mistreatment according to Gender

24 Table 1 shows ~~perceived~~ experience of maltreatment according to gender. ~~Out~~ In 6
25 out of ~~total~~ 12 items eliciting maltreatment, males dominated ~~in 6 of them~~. However, no
26 statistical differences were found between genders on any one item. When each form of
27 maltreatment was collapsed into 'verbal abuse', 'physical abuse or threats', 'academic
28 abuse', and 'sexual harassment', the only category of statistical significance at the 95%
29 confidence level was 'academic abuse' where the males reported higher levels of
30 mistreatment ($p \leq 0.004$).

37 Experience of Mistreatment according to Perpetrator

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39 As shown in Table 2, Consultants outshone others in ~~perpetuating~~ perpetrating
40 verbal abuse and physical abuse. They were also more likely to be guilty of academic
41 abuse toward ~~the male residents~~ males, when interns ($p = 0.03$). Consultants and
42 Specialists together were implicated in academic abuse and sexual harassment more than
43 the other groups ~~that the residents~~ encountered by the participants.

47 Experience of Mistreatment according to Specialty

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49 Three specialties (medicine, surgery, pediatrics) were scrutinized for variations in
50 dispensing maltreatment to ~~the residents~~ when they were interns. As shown in Table 3,
51 the data can be extrapolated in three ways. Firstly, all indices of maltreatment were
52 significantly higher during medical rotation than pediatrics in pediatric or surgery surgical
53 rotations ($p = 0.005$). ~~Secondly, pediatrics~~ Maltreatment experienced in the pediatric
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3 rotation was second highest ~~in dispensing maltreatment.~~ Thirdly, ~~verbal abuse was~~ the
4 highest type of maltreatment reported was verbal abuse (36.8%), closely followed by
5 academic abuse (35%).
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8 **Reasons for not reporting Maltreatment**

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10 The major reason for not reporting maltreatment elicited from the free text
11 responses was 'to avoid further trouble', as the Residents believed that:
12 "Reporting reporting could adversely affect evaluation and professional career." Such
13 behavior, out of fear, could be seen as secondary abuse. Some respondents did not know
14 how to deal with the problem or preferred to deal with the maltreatment themselves as
15 they "did not know whom to report to or how to make the complaint." Seven respondents
16 did not report the maltreatment because the perpetrator had "apologized" to them. It was
17 ~~also~~ not uncommon ~~to not recognize~~ "deny the experience as abuse "at the time it
18 happened."
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28 **DISCUSSION**

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30 To our knowledge the present research is the first in Arab countries, to describe
31 four interrelated patterns in relation to maltreatment, from the experience of first year
32 medical residents ~~in Arab countries: concerning their internship i.e.~~ gender of the victim,
33 types of maltreatment, specialty rotation where maltreatment occurred, and reasons for
34 not reporting maltreatment. Although the intended population was small, the rate of
35 response to the survey was high and the gender distribution of participants was fairly
36 balanced. Most of the participants were undertaking a medical specialty and were in their
37 late twenties. Pending further scrutiny ~~as this should study could~~ be viewed as a pilot
38 ~~study or sentinel. This.~~ However, the survey indicates ~~the alarming~~ rates of maltreatment
39 ~~to be alarming~~ in the ~~presently~~ observed cohort. On the whole, the ~~present~~ findings
40 substantiate the view of other researchers that maltreatment is prevalent during medical
41 training ~~even in this particular population.~~^{6, 7, 20, 37-38}
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51 One of the aims of this study was to examine whether there ~~is was~~ a gender
52 difference in perceived maltreatment. Maltreatment and sexual abuse (that is abuse of a
53 personal nature) ~~echo this a~~ global ~~situation where such patterns are common~~
54 seen among working ~~women~~³⁹ ~~and nonetheless, women,~~³⁹ including female doctors.^{40, 41}
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~~The result of~~In the present study ~~suggests~~the results suggest there was no statistically significant ~~difference as~~differences per gender although young female doctors were more likely to experience threats and sexual harassment. It is not clear why the present cohort appears to ostensibly differ from ~~trend~~trends commonly observed elsewhere. ~~Some speculations are therefore warranted.~~ It is possible that gender segregation, a common social prescription in the region, may have ~~insidiously~~ shielded ~~female~~females from being subjected to maltreatment. In traditional Omani society, gender segregation has been suggested to have been socio-culturally sanctioned in order to enhance female safety.⁴² It is also possible that, due to the trajectory of modernity and female empowerment, trends may ~~have also played present observation be shifting.~~ There is an indication that ~~recent~~growing affluence in Oman ~~has narrowed is narrowing the~~ traditional ~~the~~ gender gap ~~common~~commonly found in ~~such patrilineal society-patriarchal societies.~~ Drawing ~~from~~on data from the Oman Ministry of Health ~~in Oman, Alshishtawy⁴³ has,~~ Alshishtawy⁴³ indicated that approximately 60% of the health workforce in Oman ~~are~~ females~~were female~~. Accordingly, “women outnumbered men in all medical and health categories” and “feminisation” of the medical/health sciences professions in Oman has reversed the male dominance of past years” [p.273]. Therefore, the preponderance of femalefemales in the healthcare sectors in Oman might ~~have played~~play an instrumental role in moderating ~~the~~ stereotypical picture of senior ~~male~~males abusing junior femalefemales.

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The second interrelated aim of the present quest was to shed light on the perpetrators of maltreatment. The present descriptive data unequivocally implicated those in the top echelon, such as consultants and specialists, in perpetrating academic abuse and sexual harassment. Studies elsewhere suggest that maltreatment often comes from nonmedical staff, but according to Hinze⁴⁴ and Ahmer et al.⁴⁴ and Ahmer et al.¹⁷ senior medical staff were not innocent ~~either. However, this. This current~~ preliminary study suggests that hierarchy is strongly associated with the propensity to dispense abuse. It is possible that such occurrences ~~may~~ stem from cultural patterning. While social ~~institution~~institutions in Western Europe and North American countries have explicitly made corporal punishment, as retribution for ~~an~~ academic misbehavior ~~as,~~ unacceptable (a view ~~is~~ enshrined in legal and judicial ~~system~~systems), some reports have noted

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3 ~~occurrence~~that occurrences of aggressive ~~act~~acts toward junior doctors still happen.⁴⁵ It is
4 possible that senior members, ~~the~~-traditional ~~teacher~~teachers, or father-~~figure~~figures,
5 demand filial obedience from ~~the~~-students, ~~–~~ (in this case junior doctors-). However,
6 notwithstanding such a view, it ~~appears~~does appear that maltreatment of novices in the
7 medical profession ~~exists~~remains in many societies including those that do not prescribe
8 to the cultural patterning common in Oman.^{45,46} Therefore, factors within the medical
9 culture itself need to be explored in order to devise evidence-based interventions to
10 mitigate senior members abusing the junior ones.

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Knowing which type of abuse comes from which source ~~enable~~enables educators
to focus their resources ~~to prevent~~on preventing maltreatment: although Cook, ~~Liutkus~~
and Liutkus and Risdon⁴⁷ have suggested that there is no ‘magic-bullet’ to mitigate the
prevailing maltreatment of medical trainees. ~~One~~A possible ~~venue~~is strategy, however,
would be to institute mandatory courses for medical staff on awareness about the
consequences of abuse and maltreatment. Medical schools and health care systems should
also have inbuilt mechanisms where victims of abuse can air their grievances
confidentially without consequently jeopardizing their careers.

~~Some~~There are some obvious caveats ~~are~~imperative to mention. ~~This regarding~~
this study. The data ~~presents~~present residents’ self-responses. Such a method of eliciting
information ~~is likely to be rife with~~has methodological ~~defieit~~deficits. Self-serving biases
are well known in ~~such~~self report studies.⁴⁸ It is also possible that recall bias could have
contaminated ~~their~~-responses.⁴⁹ An integral part of recall bias, is that when individuals
find certain events as emotional debilitating, the ~~obvious~~-recourse is often to repress the
memory of those events. ~~Therefore, future~~Future studies should have an in-built
mechanism to reduce the likelihood of recall bias. Secondly, some insidious cultural
factors are likely to ~~play~~-factor in the present ~~observation~~study. The Omani culture is
known to be a culture of honor and ‘shame’, which means that many of life’s
maltreatments are ~~likely to be~~ ‘concealed’.⁵⁰ Despite the anonymous nature of the present
study, it is possible that incidences of sexual harassment or maltreatment were likely to
be ‘denied’ resulting in spurious data. ~~Despite~~Regardless of the above-mentioned caveats,
interesting issues have emerged from the present study that ~~needs~~need to be followed up
in a wider context. Finally, the lack of qualitative data in a phenomenological study of

perceived experience is likely to represent a major limitation of this study in particular in a population where such studies have not yet been forthcoming. Therefore, in studies eliciting perceived experiences on cross-cultural samples, inclusion of qualitative research methodology such as interviews are likely to yield more fruitful results.⁵⁰ Such undertaking would have laid the groundwork for more meaningful quantitative research instruments. Thereby, the present finding could be scrutinized with studies that have included some interviews or focus groups so that the participants' interpretations could be explored in depth.

Finally, the lack of qualitative data may represent a major limitation in particular where such studies have not been undertaken before. Studies eliciting perceived experiences on cross-cultural samples, benefit from the inclusion of qualitative research methods such as interviews or focus groups which yield more in-depth findings⁵⁰ and can lay the groundwork for developing more meaningful quantitative research instruments. If the present study had included some interviews or focus groups, so that the participants' interpretations could be explored in depth, a greater understanding of the phenomenon could have been explicated and compared with other studies of a similar nature.

CONCLUSION

Mistreatment of medical interns is emerging as a global challenge. To our knowledge, this is the first study from the Arabian Gulf that explores maltreatment and abuse in a medical setting. Fifty eight residents (84%) consented to participate in this ~~present anonymous~~ survey ~~which consisted of approximately 84% of the~~ concerning their experiences as interns. ~~In terms of experience of mistreatment according to gender, males admitted to have~~ Males experienced higher levels of mistreatment ~~than females~~. In terms of the perpetrator ~~of harassment and abuse, it appears that~~ hierarchy counts. ~~Those appeared to dominate, as those~~ who were commanding higher positions were more prone likely to ~~fall foul to committing~~ commit maltreatment and abuse. ~~It~~ Problems also appeared ~~that the problems were more~~ rampant widespread in the ~~subspecialists sub~~ specialty of medicine. ~~Further research is needed to understand factors influencing mistreatment and draw up guidelines to limit such problems. However the~~ The findings ~~from this pilot study~~ should ~~lead to the~~ encourage further identification of factors

~~perpetuating that perpetuate~~ maltreatment and abuse among medical ~~trainee~~-interns. ~~Thus, More extensive research is needed, however, to understand those factors in order to draw up guidelines that will limit such problems and provide~~ evidence-based interventions ~~can be contemplated~~. ~~appropriate for the context of Oman.~~

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~~Conflicts~~**Conflict of interest:** none

Contributors

M-AS is responsible for study supervision, - T-AK and Y-AF are responsible for study concept and design and data collection, A-AM is responsible for integrity of the data and the accuracy of the data analysis and GW, -H-AS and S-AA were responsible for drafting, ~~the~~ literature review and scientific approach ~~of~~ the write-up.

REFERENCES:

1. Borg MG. The extent and nature of bullying among primary and secondary schoolchildren. *Educ Res* 1999; 41:137-53.
2. Richman JA, Rospenda KM, Nawyn SJ, F et al. Sexual harassment and generalized workplace abuse among university employees: Prevalence and mental health correlates. *Am J Public Health* 1999; 89:358-63.
3. Maida AM, Vasquez A, Herskovic V, et al. A report on student abuse during medical training. *Med Teach* 2003; 25:497-501.
4. White GE: Sexual harassment during medical training: the perceptions of medical students at a university medical school in Australia. *Med Educ* 2000; 34:980-86.
5. Coverdale JH, Balon R, Roberts LW. Mistreatment of trainees: verbal abuse and other bullying behaviors. *Acad Psychiatry* 2009; 33:269-73.

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6. Daugherty SR, Baldwin DC Jr, Rowley BD. Learning, satisfaction, and mistreatment during medical internship: a national survey of working conditions. *JAMA* 1998; 279:1194-9.
7. Quine L. Workplace bullying in junior doctors: questionnaire survey. *BMJ* 2002; 324:878-9.
8. Askew DA, Schluter PJ, Dick ML, et al. Bullying in the Australian medical workforce: cross-sectional data from an Australian e-Cohort study. *Aust Health Rev* 2012; 36:197-204.
9. Scott J, Blanshard C, Child S. Workplace bullying of junior doctors: cross-sectional questionnaire survey. *N Z Med J* 2008 Sep 22; 121:10-4.
10. Finucane P, O'Dowd T. Working and training as an intern: a national survey of Irish interns. *Med Teach* 2005; 27:107-13.
11. Mejía R, Diego A, Alemán M, et al. Perception of mistreatment during medical residency training. *Medicina (B Aires)* 2005; 65: 295-301.
12. Nagata-Kobayashi S, Maeno T, Yoshizu M, et al. Universal problems during residency: abuse and harassment. *Med Educ* 2009; 43:628-36.
13. Nagata-Kobayashi S, Sekimoto M, Koyama H, et al. Medical student abuse during clinical clerkships in Japan. *J Gen Intern Med* 2006; 21:212-8
14. Yildirim D, Yildirim A, Timucin A. Mobbing behaviors encountered by nurse teaching staff. *Nurs Ethics* 2007; 14:447-63.
15. Bairy KL, Thirumalaikolundusubramanian P, Sivagnanam G, et al. Bullying among trainee doctors in Southern India: a questionnaire study. *J Postgrad Med* 2007; 53:87-90.
16. Imran N, Jawaid M, Haider II, et al. Bullying of junior doctors in Pakistan: a cross-sectional survey. *Singapore Med J* 2010; 51: 592-95.
17. Ahmer S, Yousafzai AW, Siddiqi M, et al. Bullying of trainee psychiatrists in Pakistan: a cross-sectional questionnaire survey. *Acad Psychiatry* 2009; 33:335-39.
18. Dyrbye LN, Harper W, Moutier C, Durning SJ, Power DV, Massie F, et al. A multi-institutional study exploring the impact of positive mental health on medical students' professionalism in an era of high burnout. *Acad Med* 2012; 87: 1024-1031.

19. Dyrbye LN, Massie FS Jr, Eacker A, Harper W, Power DV, Durning S, Thomas MR, Moutier C, Satele D, Sloan JA, Shanafelt TD. 'Relationship between Burnout and Professional Conduct and Attitudes among US Medical Students'. *JAMA*, 2010; 304:1173-1180.
20. Schuchert MK. The relationship between verbal abuse of medical students and their confidence in their clinical abilities. *Acad Med* 1998; 73: 907-9.
21. Dyrbye LN, Thomas MR, Massie FS, Power DV, Eacker A, Harper W, Durning S, Shanafelt TD. Burnout and suicidal ideation among U.S. medical students. *Ann Intern Med* 2008; 149: 334-341.
22. Bhan, A. Substance abuse among medical professionals: A way of coping with job dissatisfaction and adverse work environments. *Indian J Med Sci* 2009; 63: 308-309.
23. Dyrbye LN, Thomas MR, Shanafelt TD. Medical student distress: causes, consequences, and proposed solutions. *Mayo Clin Proc* 2005; 80:1613-22.
24. Sheehan KH, Sheehan DV, White K, et al A pilot study of medical student 'abuse'. Student perceptions of mistreatment and misconduct in medical school. *JAMA* 1990; 263:533-37.
25. Aasland OG, Hem E, Haldorsen T, et al. Mortality among Norwegian doctors 1960-2000. *BMC Public Health* 2011; 11:173.
26. Petersen MR, Burnett CA. The suicide mortality of working physicians and dentists. *Occup Med (Lond)* 2008; 58: 25-29.
27. Tartas M, Walkiewicz M, Majkovicz M, et al. Psychological factors determining success in a medical career: a 10-year longitudinal study. *Med Teach* 2011; 33: e163-72.
28. Miedema B, MacIntyre L, Tatemichi S, et al. How the medical culture contributes to coworker-perpetrated harassment and abuse of family physicians. *Ann Fam Med* 2012; 10: 111-17.
29. Al-Adawi S, Al-Bahlani S Domestic violence: "What's love got to do with it?". *Sultan Qaboos Univ Med J*. 2007;7:5-14.
30. Ahmed I, Banu H, Al-Fageer R, et al. Cognitive emotions: Depression and anxiety in medical students and staff. *J Crit Care* 2009; 24:e1-7.

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31. Al-Saleh SA, Al-Madi EM, Al-Angari NS, et al. Survey of perceived stress-inducing problems among dental students, Saudi Arabia. *Saudi Dent J* 2010; 22:83–8.
32. Al-Dabal BK, Koura MR, Rasheed P, et al. A comparative study of perceived stress among female medical and non-medical university students in Dammam, Saudi Arabia. *Sultan Qaboos Univ Med* 2010; 10:231–40.
33. Al-Busaidi Z, Bhargava K, Al-Ismaily A, et al. Prevalence of Depressive Symptoms among University Students in Oman. *Oman Med J* 2011; 26:235-39.
34. Al-Adawi SS. Re: Comparative study of Perceived Stress among Female Medical and Non-Medical University Students in Dammam, Saudi Arabia. *Sultan Qaboos Univ Med J* 2010; 10:410-11.
35. Baldwin DC Jr, Daugherty SR, Eckenfels EJ: Student perceptions of mistreatment and harassment during medical school: a survey of ten United States schools. *West J Med* 1991, 155:140-145.
36. Uhari M, Kokkonen J, Nuutinen M, Vainionpää L, Rantala H, Lautala P, Väyrynen M: Medical student abuse: An international phenomenon. *JAMA* 1994, 271:1049-1051.
37. Einarsen S, Raknes BI: Harassment in the workplace and the victimization of men. *Violence Vict* 1997; 12:247-63.
38. Richman JA, Flaherty JA, Rospenda KM, et al. Mental health consequences and correlates of reported medical student abuse. *JAMA* 1992; 267:692-4.
39. Eloul L, Ambusaidi A, Al-Adawi S. Silent Epidemic of Depression in Women in the Middle East and North Africa Region: Emerging tribulation or fallacy? *Sultan Qaboos Univ Med J* 2009; 9: 5-15.
40. Nora LM, McLaughlin MA, Fosson SE, et al. Gender discrimination and sexual harassment in medical education: perspectives gained by a 14-school study. *Acad Med* 2002; 77:1226-34.
41. Larsson C, Hensing G, Allbeck P: Sexual and gender-related harassment in medical education and research training: results from a Swedish survey. *Med Educ* 2003, 37:39-50.
42. Wikan U. *Behind the Veil in Arabia: Women in Oman*. Chicago: University of Chicago Press, 1991.
43. Alshishtawy M. Re: Afghanistan and Oman: Personal reflections on a profound contrast. *Sultan Qaboos Univ Med J* 2010;10:272-275.

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44. Hinze SW. 'Am I being over-sensitive?' Women's experience of sexual harassment during medical training. *Health (London)* 2004; 8:101-27.
45. Madhiwalla N, Roy N. Assaults on public hospital staff by patients and their relatives: an inquiry. *Indian J Med Ethics* 2006, 3; 51-54.
46. Moscarello R, Margittai KJ, Rossi M. Differences in abuse reported by female and male Canadian medical students. *Can Med Assoc J* 1994; 150: 357-63.
47. Cook DJ, Liutkus JF, Risdon CL, et al. Residents' experiences of abuse, discrimination and sexual harassment during residency training. McMaster University Residency Training Programs. *Can Med Assoc J* 1996; 154:1657-65.
48. Mezulis AH, Abramson LY, Hyde JS, Hankin BL. Is there a universal positivity bias in attributions? A meta-analytic review of individual, developmental, and cultural differences in the self-serving attributional bias. *Psychol Bull* 2004; 130:711-47.
49. Coughlin SS. Recall bias in epidemiologic studies. *J Clin Epidemiol* 1990; 43:87-91.
50. Dwairy M, Van Sickle T.D. Western psychotherapy in traditional Arabic societies. *Clin Psychol Rev.* 1996; 16: 231-49.
51. Al-Adawi S, Al-Busaidi Z, Al-Adawi SS, Burke DT. Families Coping With Disability Due to Brain Injury in Oman: Attribution to Belief in Spirit Infestation and Ensorcellment. *SAGE Open* July-September 2012: 1-8 DOI: 10.1177/2158244012457400.

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For peer review only

Table 1: Medical trainee reporting different types of mistreatment according to sex

	♂+♀ (N=58)	♂(N=28)	♀(N=30)
VERBAL ABUSE			
Shouted at you	29 (50%)	14 (50%)	15 (50%)
Belittled or humiliated you during meetings or rounds	32 (55.2%)	17 (60.7%)	15 (50%)
Spoken to you un-respectfully	27 (46.6%)	13 (46.4%)	14 (46.7%)
PHYSICAL ABUSE OR THREATS			
Threatened you with physical harms	7 (12.1%)	3 (10.7%)	4 (13.3%)
ACADEMIC ABUSE			
You were asked to carry out some personal services unrelated to patient care or educational activities	17 (29.3%)	10 (35.7%)	7 (23.3%)
Your questions/queries were intentionally not answered	17 (29.3%)	11 (39.3%)	6 (20.0%)
You were forced to refer patient without providing reasonable cause for referral	30 (51.7%)	15 (53.6%)	15 (50%)
You were asked to take consent from very complicated cases	27 (46.6%)	16 (57.1%)	11 (36.7%)
You were threatened with failure or giving poor evaluations for reasons unrelated to your academic performance	15 (25.9%)	11 (39.3%)	4 (13.3%)
SEXUAL HARASSMENT			
Received jokes or comments against your gender (M/F)	9 (15.5%)	5 (17.9%)	4 (13.3%)
Received compliments or comments about your body or figure	7 (12.1%)	2 (7.1%)	5 (16.7%)
Faced with an offensive body language (e.g. repeated leering, standing too close)	7 (12.1%)	1 (3.6%)	6 (20.0%)

♂= Male

♀= Female

Table 2: Medical trainees reporting different types of mistreatments according to sources/perpetrators

	Verbal Abuse			Physical Abuse			Academic Abuse			Sexual harassment		
	♂	♀	Total	♂	♀	Total	♂	♀	Total	♂	♀	Total
Consultants	21 (75%)	17 (56.7%)	38 (65.5%)	4 (14.3%)	3 (10%)	7 (12.1%)	18 (64.3%)	11 (36.7%)	29 (50%)	4 (14.3%)	5 (16.7%)	9 (15.5%)
Specialists	9 (32.1%)	10 (33.3%)	19 (32.8%)	1 (3.6%)	2 (6.7%)	3 (5.2%)	16 (57.1%)	14(46.7%)	30 (51.7%)	4 (14.3%)	6 (20%)	10 (17.2%)
Resident	4 (14.3%)	1 (3.3%)	5 (8.6%)	0	0	0	3 (10.7%)	4 (13.3%)	7 (12.1%)	2 (7.1%)	1(3.3%)	3 (5.2%)
Nurses	6 (21.4%)	12(40%)	18 (31%)	1 (3.6%)	4(13.3%)	5 (8.6%)	7 (25%)	7 (23.3%)	14 (24.1%)	2 (7.1%)	0	2 (3.4%)
Patients/ Relative	5 (17.9%)	7(23.3%)	12 (20.7%)	1 (3.6%)	2(6.7%)	3 (5.2%)	2 (7.1%)	2 (6.7%)	4 (6.9%)	1 (3.6%)	1 (3.3%)	2 (3.4%)
Others	1 (3.6%)	2(6.7%)	3 (5.2%)	0	0	0	1 (3.6%)	0	1 (1.7%)	0	0	0

♂= Male

♀= Female

Table 3: Medical Trainee Reporting Mistreatment according to Specialty

	ALL (n=58)	MEDICINE	SURGERY	PEDIATRICS
VERBAL ABUSE		32(55.2%)	17(29.3%)	15(25.9%)
Shouted at you	29 (50%)	20(62.5%)	11(64.7%)	9(60%)
Belittled or humiliated you during meetings or rounds	32 (55.2%)	21(65.6%)	10(58.8%)	13(86.7%)
Spoke to you un-respectfully	27 (46.6%)	18(56.2%)	8(47.1%)	11(73.3%)
PHYSICAL ABUSE OR THREATS		11(19%)	1(1.7%)	3(5.2%)
Threatened you with physical harms	7 (12.1%)	11(100%)	1 (100%)	3 (100%)
ACADEMIC ABUSE		35(60.3%)	17(29%)	9(15.5%)
You were asked to carry out some personal services unrelated to patient care or educational activities	17 (29.3%)	13(37.1%)	7(41.2%)	5(55.6%)
Your questions/queries were intentionally not answered	17 (29.3%)	10(28.6%)	9(52.9%)	3(33.3%)
You were forced to refer patient without providing reasonable cause for referral	30 (51.7%)	21(60%)	11(64.7%)	5(55.6%)
You were ask to take consent from very complicated cases	27(46.6%)	20(57.1%)	10(58.8%)	4(44.4%)
You were threatened with failure or giving poor evaluations for reasons unrelated to your academic performance	15(25.9%)	10(28.6%)	4(23.5%)	5(55.6%)
SEXUAL HARASSMENT		10(17.2%)	7(12.1%)	4(6.9%)
Received jokes or comments against your gender (M/F)	9 (15.5%)	5(50%)	5(71.4%)	2(50%)
Received compliments or comments about your body or figure	7 (12.1%)	4(40%)	3(42.9%)	1(25%)
Faced with an offensive body language (e.g. repeated leering, standing too close)	7 (12.1%)	6(60%)	1(14.3%)	2(50%)

Table 4: Medical trainees' narrative for either reporting reason or not reporting maltreatment

Reason/s for not reporting such abuse	%
1. I did not recognize the experience as an abuse at the time that it happened	N=19/58 (32.8%)
2. It was not significant to be reported to those in authority	N=19/58 (32.8%)
3. Reporting such abuse or mistreatment would not accomplish anything	N=24/58 (41.4%)
4. Reporting such mistreatment or abuse would become more troublesome than it was worth	N=25/58 (43.1%)
5. I dealt with the problem directly myself	N=13/58 (22.4%)
6. I did not know to whom I should report or how to complain	N=10/58 (17.2%)
7. I was afraid that reporting such abuse would adversely affect my evaluation or my professional career in future	N=24/58 (41.4%)
8. The abuser apologized to me	N=7/58 (12.1%)
9. I was afraid of not being believed or the problem would not be dealt fairly	N=8/58 (13.8%)
10. I was afraid that the reporting would not be kept confidential	N=17/58 (29.3%)

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REVIEWER	REVIEWERS' COMMENTS	AUTHORS' RESPONSES
David Power		
	<p>This is definitely improved over previous draft. I like that this is framed more as a pilot study and would recommend that language continue through the discussion.</p> <p>Some of the English still needs slight tweaking - I recommend a non-medical editor review it for grammar.</p>	<p>Another attempt was made to improve the language</p>
	<p>On re-read, I am concerned about how participants were enrolled in the study - especially since, for a survey, this is a very high response rate. The reader needs to be clear that participants knew participation was voluntary - if this was so, I would recommend stating that. I would remove the sentence 'return of a completed survey was interpreted as a sign of informed consent'. Instead, the cover letter with the survey should have clearly indicated to the participant that this was a research study and that participation was entirely voluntary. If this was the case, I would state this more clearly. I would also remove the comment in discussion about the 11 who did not respond - since a 100% response rate is completely unrealistic - this is a very high response rate as it is - but, again, we need reassurance that participants voluntarily response and knew it was a research study.</p> <p>I believe the informed consent process as outlined in first textbox needs to be re-written. I hope authors did make it clear to respondents about their voluntary participation in a research study - and expect this was so given that it was reviewed by an IRB.</p>	<p>We thank the esteemed reviewer for raising this important issue. The text has been revised in order to take onboard on this issue.</p>
	<p>I would suggest that this reference was a more impactful study than the one quoted for Dyrbye et al (I acknowledge I was also a co-author on this one): Dyrbye LN, Massie FS Jr, Eacker A, Harper W, Power DV, Durning S, Thomas MR, Moutier C, Satele D, Sloan JA, Shanafelt TD. 'Relationship</p>	<p>Done as suggested.</p>

	between Burnout and Professional Conduct and Attitudes among US Medical Students'. Journal of the American Medical Association (JAMA), 2010, 304(11):1173-80.	
	In the discussion I would focus more on the fact that female students did not experience more abuse than males - I think this is very surprising. One of the results not shared was the gender of the perpetrator - is that information known? I assume most consultants are male. If there is any data on this, I would share it in the gender section. Since a more senior male attending abusing a junior female intern seems such a stereotypical picture, I would address this topic more.	Additional paragraph has been added to touch base on this important issue. Again, we are grateful to our esteemed reviewers for bringing this issue.
	I fully support this being published as a preliminary pilot survey which is unique from Oman.	Thank you
	Would you be willing to share your data? Cast your vote in our http://80911.poll daddy.com/s/would-you-be-willing-to-share-your-data-in-an-open-repository > Online Poll	Yes and we casted my vote



Pilot study on the prevalence of perceived abuse and mistreatment during clinical internship: a cross-sectional study among first year residents in Oman

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14 **Pilot study on the prevalence of perceived abuse and**
15 **mistreatment during clinical internship: a cross-sectional study**
16 **among first year residents in Oman**
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23 **Mohammed Al-Shafee¹, Yousuf Al-Kaabi¹, Yousuf Al-Farsi¹, Gillian White²,**
24 **Abdullah Al-Maniri¹, Hamed Al-Sinawi² and Samir Al-Adawi²**
25
26
27

28
29 ¹ Department of Family Medicine and Public Health, College of Medicine and Health
30 Sciences, Sultan Qaboos University, Muscat, Oman
31

32 ² Directorate of Education and Training, Ministry of Health, Oman
33

34
35 ³ Department of Behavioural Medicine, College of Medicine and Health Sciences, Sultan
36 Qaboos University, Muscat, Oman
37
38

39 **Correspondence to:**

40 Dr. Samir Al-Adawi,
41 Department of Behavioural Medicine,
42 College of Medicine and Health Sciences,
43 Sultan Qaboos University, P.O. Box 35,
44 Al-Khoudh 123, Muscat,
45 Sultanate of Oman
46
47

48 Telefax: + 968 24545203
49 Telephone: + 968 24141139
50 E-mail: adawi@squ.edu.om;
51 jimbo@omantel.net.om
52 samir-al-adawi@fulbrightmail.org
53
54

55 Abdullah Al-Maniri (almaniri@gmail.com)
56 Gillian White (drgillianwhite@yahoo.co.nz)
57 Hamed Al-Sinawi [hamad.senawi@gmail.com]
58
59
60

1
2
3 Mohammed Al-Shafee (shafae4@omantel.net.om)
4 Samir Al-Adawi (samir-al-adawi@fulbrightmail.org)
5 Yousuf Al-Farsi (dr.yousufalkaabi@gmail.com)
6 Yousuf Al-Kaabi (dryousufalfarsi@gmail.com)
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ABSTRACT

Objective: To evaluate perceptions of being mistreated during internship among first year Oman Medical Specialty Board residents.

Design: A cross-sectional study

Setting: Training centres for Oman Medical Specialty Board

Participants: First year medical residents following completion of internship during the study period 2009 – 2010

Method: A cross-sectional survey of first year medical residents

Results: Of 58 residents (response rate 84%). 96.6% perceived that mistreatment exists. Among different types of mistreatment reported, verbal and academic abuses were the most common (87.9%), followed by sexual harassment (24.1%), then physical abuse (22.4%). Forty-four (75.9%) residents had advised at least one of their relatives not to join medical school.

Conclusion: Mistreatment of medical interns is an ethical issue challenging the quality of clinical training. Further research is needed to understand factors influencing mistreatment and draw guidelines to limit such problems.

Key Words: Intern, internship, mistreatment, verbal abuse, physical abuse, academic abuse, sexual harassment, Oman.

ARTICLE FOCUS

To report the perceived experiences of mistreatment among medical trainees in Oman, an Arab/Islamic country.

KEY MESSAGES

The data suggests medical trainees in Oman perceived bullying behaviour as common.

STRENGTHS AND LIMITATIONS OF THIS STUDY

Bullying behaviours have been reported in different occupational settings including the medical profession. There is a dearth of study from Arab/Islamic countries. To our knowledge, this is the first study on the subject from this part of the world. This study is limited by the small sample size and cross-sectional study method.

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INTRODUCTION:

Forms of abuse and other bullying behaviours have been reported in various occupational settings.¹⁻⁴ Studies carried out in different parts of the world suggest that the medical profession is no exception to the experience of maltreatment within institutional settings. Among various medical professionals who have reported abuse, those who are in the early phase of their careers, such as interns, are the most vulnerable. According to Coverdale, Balon & Roberts, the most common degrading experiences for interns were “threats, intimidation, humiliation, excessive criticism, covert innuendo, exclusion or denial of access to opportunity, undue additions to work requirements, and shifting of responsibilities without appropriate notice”(p.269).⁵

Several studies have quantified mistreatment among medical trainees or those on the lower ladder of a medical career. Steven et al.⁶ reported in a national survey in the USA that about 93% of medical trainees had experienced at least one episode of mistreatment. Another survey undertaken in the UK⁷ reported that around 84% of medical trainees had been bullied and about 69% had witnessed bullying and harassment during their clinical placements. Other studies from societies that are similar to Western Europe, North American, and Asia Pacific regions have also found evidence of maltreatment such as Australia^{4, 8}, New Zealand⁹, Ireland¹⁰, Argentina¹¹ and Japan.¹²⁻¹³

Maltreatment of medical trainees is not limited to Western countries.¹⁴⁻¹⁶ Ahmer et al.¹⁷ have reported pervasive and persistent tendencies for medical trainees in Pakistan to be subjected to ‘disrespectful interactions’, ‘belittlement’, ‘undermining’ and ‘humiliation’. Drawing on available literature, Coverdale, Balon & Roberts⁵ categorized the common forms of maltreatment directed towards medical trainees as verbal abuse or humiliation, nonsexual harassment, sexual harassment, and forms of prejudice against sexual orientation or ethnicity.

There is a myriad of adverse impacts emerging as a result of trainees being subjected to maltreatment.^{18, 19} Schubert et al.²⁰ have shown a significant relationship between verbal abuse during medical training and lower levels of confidence, regardless of sex, race, age or levels of ability and temperament. Richman et al.² studied the mental health impacts for trainees who were subjected to maltreatment. There appeared to be disconcerting tendencies for trainees suffering maltreatment to have ‘psychopathological

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3 outcomes' in the forms of unrelenting affective emotions, resorting to 'self-medication'
4 and dependency on mind altering substances.^{21,22} This is consistent with well-known
5 observations that there are high levels of stress and psychological distress among medical
6 trainees²³ which have also been suggested as playing a role in the high rate of suicide
7 among physicians.^{25,26} There is also an indication that medical trainees who were most
8 distressed at the beginning of their training were likely to report continuing stress and
9 distress in the subsequent course of their lives.²⁷ According to Miedema et al.²⁸, there are
10 inherent mechanisms that perpetuate abusive behaviour in the medical culture, including
11 working in what is perceived as a stressful environment. This allusion to a view that
12 'abuse begets abuse'²⁹ might imply the presence of a cycle of bullying within the medical
13 profession.

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15 In the Arab world, including Oman, evidence abounds that much emotional
16 distress is present among medical trainees³⁰⁻³³. However, most of the studies are rife with
17 conceptual limitations. Many of them have utilized assessment measures without local
18 validity.³⁴ Also, the target population was pre-clinical students. Consequently, these
19 generalizations cannot be applied to interns. Internship, in medical parlance, is the period
20 in which new medical graduates practice in a hospital setting under supervision, prior to
21 beginning a specialization. In Oman, internship consists of three- to four-month rotations
22 during which each intern (resident) is rotated through the fields of general medicine,
23 general surgery and either pediatrics or obstetrics and gynecology. Following internship
24 in Oman further medical training is conducted under the auspices of the Oman Medical
25 Specialty Board (<http://www.omsb.org>), a government body that is responsible for
26 postgraduate clinical training. An integral part of its function is to oversee the well-being
27 of trainees through services that include a specialized office and designated person to
28 whom trainees can submit any grievance.

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30 With evidence of adverse experiences among medical trainees or interns in other
31 parts of the world and the fact that no data has been produced in Oman, the present study
32 aimed to quantify mistreatment or abuse of Omani medical interns by seeking responses
33 to their perceptions of abuse. Interrelated aims were to explore the level of perceived
34 mistreatment among medical trainees according to gender, perpetrator, and specialty, as
35 well as determining the reasons for not reporting maltreatment to the concerned authority.

METHODS AND MATERIALS:

Study Population

The study was carried out among first year medical residents following completion of internship. During the study period 2009 – 2010, a total of 69 medical residents were invited to participate. The residents were approached during a research workshop conducted in May 2010. Each participant was asked to fill out a questionnaire about their experience and perceptions of mistreatment and abuse with reference to their internship. The participants were assured in writing that the survey would be anonymous, data gathered would be aggregated, their participation was voluntary, and they could withdraw from the study at any time, without prejudice. In the event that undue distress was experienced by the participants while responding to sensitive questions, counseling support would be freely provided. The participants were asked not to discuss the questions among themselves in order to avoid peer influence.

ASSESSMENT MEASURES

The Likert-type questionnaire was adapted from those developed by Sheehan et al.²⁴, Baldwin et al.³⁵ and Uhari et al.³⁶, and focused on indexing ‘verbal abuse’, ‘physical abuse or threats’, ‘academic abuse’ and ‘sexual harassment’ (Table 1). *Physical Abuse* was defined as a threat that, if executed, would likely cause physical harm. Forms of physical abuse included slapping, pushing, hitting, kicking or having objects thrown at them. In addition, physical abuse also entailed being placed at unnecessary medical risk. *Academic Abuse* was defined as being coerced into carrying out personal services unrelated to the expected role of interns. The concept of academic abuse also encapsulated instances in which interns were excluded from reasonable learning opportunities offered to others, or threatened with failure or poor evaluations for reasons unrelated to academic performance. *Sexual Harassment* was defined as being subjected to jokes or comments against gender or body figure or being subjected to repeated leering or offered unwanted gifts with sexual underpinnings. The offer of private tutorial sessions or better grades in exchange for an illicit affair as well as inappropriate touching of a sexual nature also constituted examples of sexual harassment.

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3 A variety of socio-demographic data was sought from the participants, e.g. age,
4 sex, year of residency, marital status and current specialty. They were also given the
5 opportunity to describe reasons for reporting or not reporting maltreatment using free
6 text.
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10 The questionnaire was delivered to each participant in a closed envelope which
11 also contained a description of the study along with a written assurance of anonymity and
12 confidentiality so that informed consent could be obtained. Participants were explicitly
13 informed not to make any reference to their identity on the questionnaire. Written consent
14 was not required, as the participants were informed that return of a completed
15 questionnaire constituted consent to participate. The right not to answer some questions
16 was also explained.
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24 ANALYSIS

25 Descriptive statistics (raw counts and percentages) were calculated. The free
26 narrative was assessed using thematic analysis.
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30 The study was approved by the local institutional review board (IRB), and the
31 Research and Ethics Committee of College of Medicine and Health Sciences, Sultan
32 Qaboos University (MREC#382)
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37 RESULTS

38 The results are presented first as simple demographics of the sample and then in
39 relation to the aims of the study. The response rate was 84.2% (58/69) of which 30
40 (51.7%) were female and 28 (48.3%) were male. Their ages ranged from 25 to 35 years
41 (mean of 27.83 yrs and standard deviation of 1.63 yrs).
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47 Experience of Mistreatment according to Gender

48 Table 1 shows experience of maltreatment according to gender. In 6 out of 12
49 items eliciting maltreatment, males dominated. However, no statistical differences were
50 found between genders on any one item. When each form of maltreatment was collapsed
51 into 'verbal abuse', 'physical abuse or threats', 'academic abuse', and 'sexual
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3 harassment', the only category of statistical significance at the 95% confidence level was
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5 'academic abuse' where the males reported higher levels of mistreatment ($p \leq 0.004$).
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8 9 **Experience of Mistreatment according to Perpetrator**

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11 As shown in Table 2, Consultants outshone others in perpetrating verbal abuse
12 and physical abuse. They were also more likely to be guilty of academic abuse toward
13 males, when interns ($p = 0.03$). Consultants and Specialists together were implicated in
14 academic abuse and sexual harassment more than the other groups encountered by the
15 participants.
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20 21 **Experience of Mistreatment according to Specialty**

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23 Three specialties (medicine, surgery, pediatrics) were scrutinized for variations in
24 maltreatment to residents when they were interns. As shown in Table 3, the data can be
25 extrapolated in three ways. Firstly, all indices of maltreatment were significantly higher
26 during medical rotation than in pediatric or surgical rotations ($p = 0.005$). Maltreatment
27 experienced in the pediatric rotation was second highest. Thirdly, the highest type of
28 maltreatment reported was verbal abuse (36.8%), closely followed by academic abuse
29 (35%).
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37 38 **Reasons for not reporting Maltreatment**

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40 The major reason for not reporting maltreatment elicited from the free text
41 responses was 'to avoid further trouble', as the residents believed that "reporting could
42 adversely affect evaluation and professional career." Such behaviour, out of fear, could
43 be seen as secondary abuse. Some respondents did not know how to deal with the
44 problem or preferred to deal with the maltreatment themselves as they "did not know
45 whom to report to or how to make the complaint." Seven respondents did not report the
46 maltreatment because the perpetrator had "apologized" to them. It was not uncommon to
47 deny the experience as abuse "at the time it happened."
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56 57 **DISCUSSION**

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To our knowledge, the present research is the first in Arab countries to describe four interrelated patterns in relation to maltreatment, from the experience of first year medical residents concerning their internship. These patterns included the gender of the victim, types of maltreatment, specialty rotation where maltreatment occurred, and reasons for not reporting maltreatment. Although the intended population was small, the rate of response to the survey was high and the gender distribution of participants was fairly balanced. Most of the participants were undertaking a medical specialty and were in their late twenties. Pending further scrutiny, this study could be viewed as a pilot. However, the survey indicates alarming rates of maltreatment in the observed cohort. On the whole, the findings substantiate the view of other researchers that maltreatment is prevalent during medical training.^{6, 7, 20, 37-38}

One of the aims of this study was to examine whether there was a gender difference in perceived maltreatment. Maltreatment and sexual abuse (that is, abuse of a personal nature) is a global pattern seen among working women³⁹ including female doctors.^{40,41} In the present study, the results suggest there were no statistically significant differences per gender, although young female doctors were more likely to experience threats and sexual harassment. It is not clear why the present cohort appears to ostensibly differ from trends commonly observed elsewhere. It is possible that gender segregation, a common social prescription in the region, may have shielded females from being subjected to maltreatment. In traditional Omani society, gender segregation has been suggested to have been socio-culturally sanctioned in order to enhance female safety.⁴² It is also possible that, due to the trajectory of modernity and female empowerment, trends may be shifting. There is an indication that the growing affluence of Oman is narrowing the traditional gender gap commonly found in patriarchal societies. Drawing on data from the Oman Ministry of Health, Alshishtawy⁴³ indicated that approximately 60% of the health workforce in Oman was female. Accordingly, “women outnumbered men in all medical and health categories” and “*feminisation* of the medical/health sciences professions in Oman has reversed the male dominance of past years” [p.273]. Therefore, the preponderance of females in the healthcare sectors in Oman may play an instrumental role in moderating the stereotypical picture of senior males abusing junior females.

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The second interrelated aim of the present quest was to shed light on the perpetrators of maltreatment. The present descriptive data unequivocally implicated those in the top echelon, such as consultants and specialists, in committing academic abuse and sexual harassment. Studies elsewhere suggest that maltreatment often comes from nonmedical staff, but according to Hinze⁴⁴ and Ahmeret al.¹⁷, senior medical staff were not innocent. This current preliminary study suggests that hierarchy is strongly associated with the propensity to dispense abuse. It is possible that such occurrences stem from cultural patterning. While social institutions in Western Europe and North American countries have explicitly made corporal punishment, as retribution for academic misbehaviour, unacceptable (a view enshrined in legal and judicial systems), some reports have noted that occurrences of aggressive acts toward junior doctors still occur.⁴⁵ It is possible that senior members, traditional teachers, or father-figures demand filial obedience from students (in this case junior doctors). However, notwithstanding such a view, it does appear that maltreatment of novices in the medical profession remains in many societies, including those that do not prescribe to the cultural patterning common in Oman.^{4,46} In consequence, factors within the medical culture itself need to be explored in order to devise evidence-based interventions to mitigate the abuse of junior members by their seniors.

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Knowing which types of abuse come from which sources enables educators to focus their resources on preventing maltreatment, although Cook, Liutkusand Risdon⁴⁷ have suggested that there is no ‘magic-bullet’ to mitigate the prevailing maltreatment of medical trainees. A possible strategy, however, would be to institute mandatory courses for medical staff on awareness about the consequences of abuse and maltreatment. Medical schools and health care systems should also have inbuilt mechanisms where victims of abuse can air their grievances confidentially without consequently jeopardizing their careers.

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There are some obvious caveats to mention regarding this study. The data present residents’ self-responses. Such a method of eliciting information has methodological deficits. Self-serving biases are well known in self-report studies.⁴⁸ It is also possible that recall bias could have contaminated responses.⁴⁹ An integral part of recall bias is that when individuals perceive certain events as emotionally debilitating, the recourse is often

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3 to repress the memory of those events. Future investigations should have a built-in
4 mechanism to reduce the likelihood of recall bias. Secondly, some insidious cultural
5 factors are likely to factor in the present study. The Omani culture is known to be a
6 culture of honor and 'shame', which means that many of life's maltreatments are
7 'concealed'.⁵⁰ Despite the anonymous nature of the present study, it is possible that
8 incidences of sexual harassment or maltreatment were 'denied', resulting in spurious
9 data. Notwithstanding the above-mentioned caveats, interesting issues have emerged
10 from the present study that need to be followed up in a wider context. Finally, the lack of
11 qualitative data in a phenomenological examination of perceived experience is likely to
12 represent a major limitation of this study in particular in a population where such
13 investigations have not yet been forthcoming. Therefore, in research eliciting perceived
14 experiences on cross-cultural samples, inclusion of qualitative research methodology
15 such as interviews is likely to yield more fruitful results.⁵⁰ Such undertakings would lay
16 the groundwork for more meaningful quantitative research instruments. Thereby, the
17 present finding could be scrutinized with studies that have included some interviews or
18 focus groups so that the participants' interpretations could be explored in depth.
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32 Finally, the lack of qualitative data may represent a major limitation, particularly
33 where such studies have not been undertaken before. Studies eliciting perceived
34 experiences on cross-cultural samples benefit from the inclusion of qualitative research
35 methods such as interviews or focus groups which yield more in-depth findings⁵⁰, and
36 can lay the groundwork for developing more meaningful quantitative research
37 instruments. If the present study had included some interviews or focus groups, so that
38 the participants' interpretations could be explored in depth, a greater understanding of the
39 phenomenon could have been explicated and compared with other studies of a similar
40 nature.
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49 CONCLUSION

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51 According to the literature, mistreatment of medical interns is emerging as a
52 global challenge. To our knowledge, this is the first study from the Arabian Gulf that
53 explores the perception of maltreatment and abuse in a medical setting. Fifty eight
54 residents (84%) consented to participate in this survey concerning their experiences as
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3 interns. The ratio of males to females in this group, who were in their late twenties, was
4 representative of the target population. Males responded that they had experienced
5 higher levels of perceived mistreatment than females, particularly regarding academic
6 abuse. In terms of the perpetrator, hierarchy appeared to dominate, as those who were
7 commanding higher positions were more likely to commit maltreatment (such as
8 academic abuse) and abuse (such as sexual harassment). Problems also appeared more
9 widespread in the sub-specialty of medicine. Reporting maltreatment was uncommon
10 thus documented data does not exist to support evidence of abuse. In this study, therefore,
11 only perceptions of maltreatment could be elicited, reasons for not reporting being
12 focused on fear of further trouble.
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21 The findings from this pilot study should encourage further identification of
22 factors that perpetuate maltreatment and abuse among medical interns. More extensive
23 research is needed, however, to understand those factors in order to draw up guidelines
24 that will limit such problems and provide evidence-based interventions appropriate for
25 the context of Oman.
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36 of this article.
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39 **Competing interests:** None
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42 **Participant consent:** Obtained.
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44 **Ethics approval:** Ethics approval was provided by the local institutional review board
45 (IRB), Research and Ethics Committee of College of Medicine and Health Sciences,
46 Sultan Qaboos University (MREC#382)
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48 **Conflict of interest:** None
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51 **Contributors**

52 M-AS is responsible for study supervision, T-AK and Y-AF are responsible for study
53 concept and design and data collection, A-AM is responsible for integrity of the data and
54 the accuracy of the data analysis and GW, H-AS and S-AA were responsible for drafting
55 the literature review and scientific approach to the write-up.
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REFERENCES:

1. Borg MG. The extent and nature of bullying among primary and secondary schoolchildren. *Educ Res* 1999; 41:137-53.
2. Richman JA, Rospenda KM, Nawyn SJ, F et al. Sexual harassment and generalized workplace abuse among university employees: Prevalence and mental health correlates. *Am J Public Health* 1999; 89:358-63.
3. Maida AM, Vasquez A, Herskovic V, et al. A report on student abuse during medical training. *Med Teach* 2003; 25:497-501.
4. White GE: Sexual harassment during medical training: the perceptions of medical students at a university medical school in Australia. *Med Educ* 2000; 34:980-86.
5. Coverdale JH, Balon R, Roberts LW. Mistreatment of trainees: verbal abuse and other bullying behaviours. *Acad Psychiatry* 2009; 33:269-73.
6. Daugherty SR, Baldwin DC Jr, Rowley BD. Learning, satisfaction, and mistreatment during medical internship: a national survey of working conditions. *JAMA* 1998; 279:1194-9.
7. Quine L. Workplace bullying in junior doctors: questionnaire survey. *BMJ* 2002; 324:878-9.
8. Askew DA, Schluter PJ, Dick ML, et al. Bullying in the Australian medical workforce: cross-sectional data from an Australian e-Cohort study. *Aust Health Rev* 2012; 36:197-204.
9. Scott J, Blanshard C, Child S. Workplace bullying of junior doctors: cross-sectional questionnaire survey. *N Z Med J* 2008 Sep 22; 121:10-4.
10. Finucane P, O'Dowd T. Working and training as an intern: a national survey of Irish interns. *Med Teach* 2005; 27:107-13.
11. Mejía R, Diego A, Alemán M, et al. Perception of mistreatment during medical residency training. *Medicina (B Aires)* 2005; 65: 295-301.
12. Nagata-Kobayashi S, Maeno T, Yoshizu M, et al. Universal problems during residency: abuse and harassment. *Med Educ* 2009; 43:628-36.
13. Nagata-Kobayashi S, Sekimoto M, Koyama H, et al. Medical student abuse during clinical clerkships in Japan. *J Gen Intern Med* 2006; 21:212-8
14. Yildirim D, Yildirim A, Timucin A. Mobbing behaviours encountered by nurse teaching staff. *Nurs Ethics* 2007; 14:447-63.

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15. Bairy KL, Thirumalaikolundusubramanian P, Sivagnanam G, et al. Bullying among trainee doctors in Southern India: a questionnaire study. *J Postgrad Med* 2007; 53:87-90.
16. Imran N, Jawaid M, Haider II, et al. Bullying of junior doctors in Pakistan: a cross-sectional survey. *Singapore Med J* 2010; 51: 592-95.
17. Ahmer S, Yousafzai AW, Siddiqi M, et al. Bullying of trainee psychiatrists in Pakistan: a cross-sectional questionnaire survey. *Acad Psychiatry* 2009; 33:335-39.
18. Dyrbye LN, Harper W, Moutier C, Durning SJ, Power DV, Massie F, et al. A multi-institutional study exploring the impact of positive mental health on medical students' professionalism in an era of high burnout. *Acad Med* 2012; 87: 1024-1031.
19. Dyrbye LN, Massie FS Jr, Eacker A, Harper W, Power DV, Durning S, Thomas MR, Moutier C, Satele D, Sloan JA, Shanafelt TD. Relationship between Burnout and Professional Conduct and Attitudes among US Medical Students. *JAMA*, 2010; 304:1173-1180.
20. Schuchert MK. The relationship between verbal abuse of medical students and their confidence in their clinical abilities. *Acad Med* 1998; 73: 907-9.
21. Dyrbye LN, Thomas MR, Massie FS, Power DV, Eacker A, Harper W, Durning S, Shanafelt TD. Burnout and suicidal ideation among U.S. medical students. *Ann Intern Med* 2008; 149; 334-341.
22. Bhan, A. Substance abuse among medical professionals: A way of coping with job dissatisfaction and adverse work environments. *Indian J Med Sci* 2009; 63: 308-309.
23. Dyrbye LN, Thomas MR, Shanafelt TD. Medical student distress: causes, consequences, and proposed solutions. *Mayo Clin Proc* 2005; 80:1613-22.
24. Sheehan KH, Sheehan DV, White K, et al A pilot study of medical student 'abuse'. Student perceptions of mistreatment and misconduct in medical school. *JAMA* 1990; 263:533-37.
25. Aasland OG, Hem E, Haldorsen T, et al. Mortality among Norwegian doctors 1960-2000. *BMC Public Health* 2011; 11:173.
26. Petersen MR, Burnett CA. The suicide mortality of working physicians and dentists. *Occup Med (Lond)* 2008; 58: 25-29.

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27. Tartas M, Walkiewicz M, Majkiewicz M, et al. Psychological factors determining success in a medical career: a 10-year longitudinal study. *Med Teach* 2011; 33: e163-72.
28. Miedema B, MacIntyre L, Tatemichi S, et al. How the medical culture contributes to coworker-perpetrated harassment and abuse of family physicians. *Ann Fam Med* 2012; 10: 111-17.
29. Al-Adawi S, Al-Bahlani S Domestic violence: "What's love got to do with it?" *Sultan Qaboos Univ Med J*. 2007;7:5-14.
30. Ahmed I, Banu H, Al-Fageer R, et al. Cognitive emotions: Depression and anxiety in medical students and staff. *J Crit Care* 2009; 24:e1-7.
31. Al-Saleh SA, Al-Madi EM, Al-Angari NS, et al. Survey of perceived stress-inducing problems among dental students, Saudi Arabia. *Saudi Dent J* 2010; 22:83-8.
32. Al-Dabal BK, Koura MR, Rasheed P, et al. A comparative study of perceived stress among female medical and non-medical university students in Dammam, Saudi Arabia. *Sultan Qaboos Univ Med* 2010; 10:231-40.
33. Al-Busaidi Z, Bhargava K, Al-Ismaily A, et al. Prevalence of Depressive Symptoms among University Students in Oman. *Oman Med J* 2011; 26:235-39.
34. Al-Adawi SS. Re: Comparative study of Perceived Stress among Female Medical and Non-Medical University Students in Dammam, Saudi Arabia. *Sultan Qaboos Univ Med J* 2010; 10:410-11.
35. Baldwin DC Jr, Daugherty SR, Eckenfels EJ: Student perceptions of mistreatment and harassment during medical school: a survey of ten United States schools. *West J Med* 1991, 155:140-145.
36. Uhari M, Kokkonen J, Nuutinen M, Vainionpää L, Rantala H, Lautala P, Väyrynen M: Medical student abuse: An international phenomenon. *JAMA* 1994, 271:1049-1051.
37. Einarsen S, Raknes BI: Harassment in the workplace and the victimization of men. *Violence Vict* 1997; 12:247-63.
38. Richman JA, Flaherty JA, Rospenda KM, et al. Mental health consequences and correlates of reported medical student abuse. *JAMA* 1992; 267:692-4.
39. Eloul L, Ambusaidi A, Al-Adawi S. Silent Epidemic of Depression in Women in the Middle East and North Africa Region: Emerging tribulation or fallacy? *Sultan Qaboos Univ Med J* 2009; 9: 5-15.

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- 6
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- 9 41. Larsson C, Hensing G, Allbeck P: Sexual and gender-related harassment in medical education and research training: results from a Swedish survey. *Med Educ* 2003, 37:39-50.
- 10
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- 14 42. Wikan U. *Behind the Veil in Arabia: Women in Oman*. Chicago: University of Chicago Press, 1991.
- 15
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- 17 43. Alshishtawy M. Re: Afghanistan and Oman: Personal reflections on a profound contrast. *Sultan Qaboos Univ Med J* 2010;10:272-275.
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- 21 44. Hinze SW. 'Am I being over-sensitive?' Women's experience of sexual harassment during medical training. *Health (London)* 2004; 8:101-27.
- 22
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- 24 45. Madhiwalla N, Roy N. Assaults on public hospital staff by patients and their relatives: an inquiry. *Indian J Med Ethics* 2006, 3; 51-54.
- 25
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- 28 46. Moscarello R, Margittai KJ, Rossi M. Differences in abuse reported by female and male Canadian medical students. *Can Med Assoc J* 1994; 150: 357-63.
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- 31 47. Cook DJ, Liutkus JF, Risdon CL, et al. Residents' experiences of abuse, discrimination and sexual harassment during residency training. *McMaster University Residency Training Programs. Can Med Assoc J* 1996; 154:1657-65.
- 32
- 33
- 34 48. Mezulis AH, Abramson LY, Hyde JS, Hankin BL. Is there a universal positivity bias in attributions? A meta-analytic review of individual, developmental, and cultural differences in the self-serving attributional bias. *Psychol Bull* 2004; 130:711-47.
- 35
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- 38
- 39 49. Coughlin SS. Recall bias in epidemiologic studies. *J Clin Epidemiol* 1990; 43:87-91.
- 40
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- 43 50. Dwairy M, Van Sickle T.D. Western psychotherapy in traditional Arabic societies. *Clin Psychol Rev.* 1996; 16: 231-49.
- 44
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- 47 51. Al-Adawi S, Al-Busaidi Z, Al-Adawi SS, Burke DT. Families Coping With Disability Due to Brain Injury in Oman: Attribution to Belief in Spirit Infestation and Ensorcement. *SAGE Open* July-September 2012: 1-8 DOI: 10.1177/2158244012457400.
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Table 1: Medical trainee reporting different types of mistreatment according to sex

	♂+♀ (N=58)	♂(N=28)	♀(N=30)
VERBAL ABUSE			
Shouted at you	29 (50%)	14 (50%)	15 (50%)
Belittled or humiliated you during meetings or rounds	32 (55.2%)	17 (60.7%)	15 (50%)
Spoken to you un-respectfully	27 (46.6%)	13 (46.4%)	14 (46.7%)
PHYSICAL ABUSE OR THREATS			
Threatened you with physical harms	7 (12.1%)	3 (10.7%)	4 (13.3%)
ACADEMIC ABUSE			
You were asked to carry out some personal services unrelated to patient care or educational activities	17 (29.3%)	10 (35.7%)	7 (23.3%)
Your questions/queries were intentionally not answered	17 (29.3%)	11 (39.3%)	6 (20.0%)
You were forced to refer patient without providing reasonable cause for referral	30 (51.7%)	15 (53.6%)	15 (50%)
You were asked to take consent from very complicated cases	27 (46.6%)	16 (57.1%)	11 (36.7%)
You were threatened with failure or giving poor evaluations for reasons unrelated to your academic performance	15 (25.9%)	11 (39.3%)	4 (13.3%)
SEXUAL HARASSMENT			
Received jokes or comments against your gender (M/F)	9 (15.5%)	5 (17.9%)	4 (13.3%)
Received compliments or comments about your body or figure	7 (12.1%)	2 (7.1%)	5 (16.7%)
Faced with an offensive body language (e.g. repeated leering, standing too close)	7 (12.1%)	1 (3.6%)	6 (20.0%)

♂= Male

♀= Female

Table 2: Medical trainees reporting different types of mistreatments according to sources/perpetrators

	Verbal Abuse			Physical Abuse			Academic Abuse			Sexual harassment		
	♂	♀	Total	♂	♀	Total	♂	♀	Total	♂	♀	Total
Consultants	21 (75%)	17 (56.7%)	38 (65.5%)	4 (14.3%)	3 (10%)	7 (12.1%)	18 (64.3%)	11 (36.7%)	29 (50%)	4 (14.3%)	5 (16.7%)	9 (15.5%)
Specialists	9 (32.1%)	10 (33.3%)	19 (32.8%)	1 (3.6%)	2 (6.7%)	3 (5.2%)	16 (57.1%)	14(46.7%)	30 (51.7%)	4 (14.3%)	6 (20%)	10 (17.2%)
Resident	4 (14.3%)	1 (3.3%)	5 (8.6%)	0	0	0	3 (10.7%)	4 (13.3%)	7 (12.1%)	2 (7.1%)	1(3.3%)	3 (5.2%)
Nurses	6 (21.4%)	12(40%)	18 (31%)	1 (3.6%)	4(13.3%)	5 (8.6%)	7 (25%)	7 (23.3%)	14 (24.1%)	2 (7.1%)	0	2 (3.4%)
Patients/ Relative	5 (17.9%)	7(23.3%)	12 (20.7%)	1 (3.6%)	2(6.7%)	3 (5.2%)	2 (7.1%)	2 (6.7%)	4 (6.9%)	1 (3.6%)	1 (3.3%)	2 (3.4%)
Others	1 (3.6%)	2(6.7%)	3 (5.2%)	0	0	0	1 (3.6%)	0	1 (1.7%)	0	0	0

♂= Male

♀= Female

Table 3: Medical Trainee Reporting Mistreatment according to Specialty

	ALL (n=58)	MEDICINE	SURGERY	PEDIATRICS
VERBAL ABUSE		32(55.2%)	17(29.3%)	15(25.9%)
Shouted at you	29 (50%)	20(62.5%)	11(64.7%)	9(60%)
Belittled or humiliated you during meetings or rounds	32 (55.2%)	21(65.6%)	10(58.8%)	13(86.7%)
Spoke to you un-respectfully	27 (46.6%)	18(56.2%)	8(47.1%)	11(73.3%)
PHYSICAL ABUSE OR THREATS		11(19%)	1(1.7%)	3(5.2%)
Threatened you with physical harms	7 (12.1%)	11(100%)	1 (100%)	3 (100%)
ACADEMIC ABUSE		35(60.3%)	17(29%)	9(15.5%)
You were asked to carry out some personal services unrelated to patient care or educational activities	17 (29.3%)	13(37.1%)	7(41.2%)	5(55.6%)
Your questions/queries were intentionally not answered	17 (29.3%)	10(28.6%)	9(52.9%)	3(33.3%)
You were forced to refer patient without providing reasonable cause for referral	30 (51.7%)	21(60%)	11(64.7%)	5(55.6%)
You were ask to take consent from very complicated cases	27(46.6%)	20(57.1%)	10(58.8%)	4(44.4%)
You were threatened with failure or giving poor evaluations for reasons unrelated to your academic performance	15(25.9%)	10(28.6%)	4(23.5%)	5(55.6%)
SEXUAL HARASSMENT		10(17.2%)	7(12.1%)	4(6.9%)
Received jokes or comments against your gender (M/F)	9 (15.5%)	5(50%)	5(71.4%)	2(50%)
Received compliments or comments about your body or figure	7 (12.1%)	4(40%)	3(42.9%)	1(25%)
Faced with an offensive body language (e.g. repeated leering, standing too close)	7 (12.1%)	6(60%)	1(14.3%)	2(50%)

Table 4: Medical trainees' narrative for either reporting reason or not reporting maltreatment

Reason/s for not reporting such abuse	%
1. I did not recognize the experience as an abuse at the time that it happened	N=19/58 (32.8%)
2. It was not significant to be reported to those in authority	N=19/58 (32.8%)
3. Reporting such abuse or mistreatment would not accomplish anything	N=24/58 (41.4%)
4. Reporting such mistreatment or abuse would become more troublesome than it was worth	N=25/58 (43.1%)
5. I dealt with the problem directly myself	N=13/58 (22.4%)
6. I did not know to whom I should report or how to complain	N=10/58 (17.2%)
7. I was afraid that reporting such abuse would adversely affect my evaluation or my professional career in future	N=24/58 (41.4%)
8. The abuser apologized to me	N=7/58 (12.1%)
9. I was afraid of not being believed or the problem would not be dealt fairly	N=8/58 (13.8%)
10. I was afraid that the reporting would not be kept confidential	N=17/58 (29.3%)

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<u>FROM THE MANAGING EDITOR:</u>	<u>Authors</u>
<p><u>I greatly appreciate the effort that has been put in to the language editing of the paper. Unfortunately I think one further round of revision is required. The biggest problem is the purpose of the paper is not very clear.</u></p> <p><u>The abstract states that the objective is 'To evaluate perceptions of being mistreated during internship among first year Oman Medical Specialty Board residents.'</u> <u>So the abstract is clear that what is being measured is the perception of mistreatment - which is not mistreatment itself.</u></p>	<p><u>The word 'perceived' has been added as an adjective in various appropriate parts of the article</u></p>
<p><u>However the conclusion to the abstract is all about the prevalence of mistreatment (in this respect, matching the title). The conclusion is also very general - it should relate more specifically to the conclusions of the study.</u></p>	<p><u>A few more specific details have been added to the conclusion. The conclusion moves from specific to general – as most maltreatment is not documented it has been made clear that we can only go on perceptions.</u></p>
<p><u>The article focus goes much broader - it says that the focus is 'To understand factors influencing mistreatment and to draw guidelines to limit such problems'. These are two completely different research questions that don't match the abstract.</u></p>	<p><u>The text has been revised to accommodate such request.</u></p>
<p><u>In the introduction you then say 'the present study aimed to quantify mistreatment or abuse of Omani medical interns. Interrelated aims were to explore the level of mistreatment among medical trainees according to gender, perpetrator, and specialty, as well as determine the reasons for not reporting maltreatment to the concerned authority'; the first of these aims has been covered before but quantifying mistreatment is not the same as surveying perceptions of having been mistreated.</u></p>	<p><u>The word 'perceived' has been placed before 'mistreatment. This addition should satisfy the concern about 'quantifying' mistreatment</u></p>
<p><u>So - you need to make the title, abstract, key messages and introduction consistent</u></p>	<p><u>Done</u></p>
<p><u>The results, discussion and tables then need to be clear about whether you are reporting actual cases of mistreatment or perceptions of mistreatment.</u></p>	<p><u>Done</u></p>
<p><u>Please also check the English one more time; for example it is not clear what you mean by 'the category of fallacy'.</u></p>	<p><u>We have sought help from a native English speaker. As it causes confusion, reference to 'category of fallacy' has been deleted</u></p>

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Pilot study on the prevalence of abuse and mistreatment during clinical internship: a cross-sectional study among first year residents in Oman

Mohammed Al-Shafee¹, Yousuf Al-Kaabi¹, Yousuf Al-Farsi¹, Gillian White²,
Abdullah Al-Maniri¹, Hamed Al-Sinawi² and Samir Al-Adawi²

¹Department of Family Medicine and Public Health, College of Medicine and Health Sciences, Sultan Qaboos University, Muscat, Oman

² Directorate of Education and Training, Ministry of Health, Oman

³Department of ~~Behavioral~~Behavioural Medicine, College of Medicine and Health Sciences, Sultan Qaboos University, Muscat, Oman

Correspondence to:

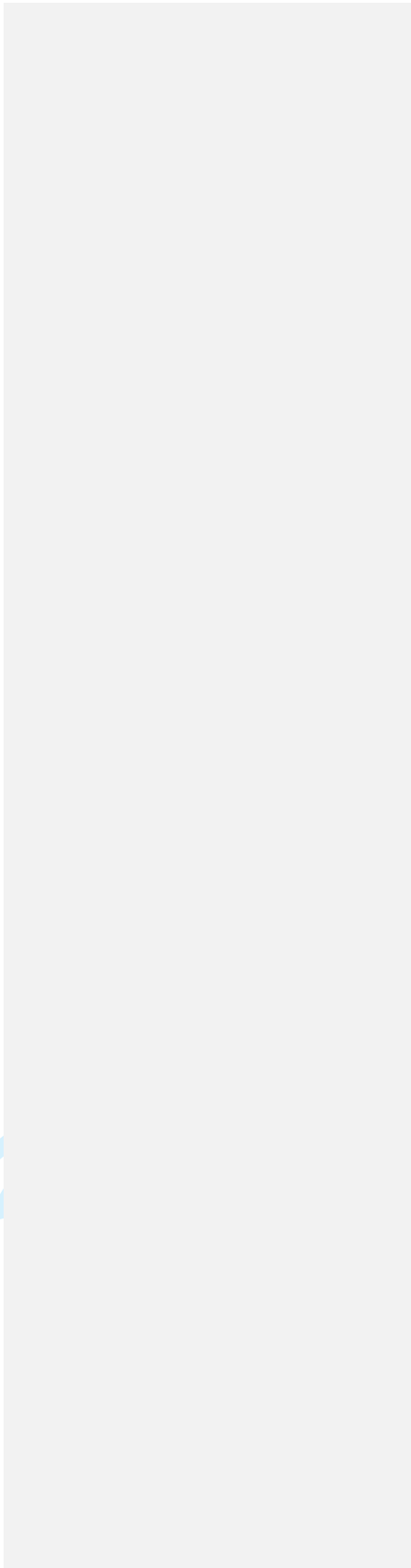
Dr. Samir Al-Adawi,
Department of ~~Behavioral~~Behavioural Medicine,
College of Medicine and Health Sciences,
Sultan Qaboos University, P.O. Box 35,
Al-Khoudh 123, Muscat,
Sultanate of Oman

Telefax: + 968 24545203
Telephone: + 968 24141139
E-mail: adawi@squ.edu.om;
jimbo@omantel.net.om
samir-al-adawi@fulbrightmail.org

Abdullah Al-Maniri (almaniri@gmail.com)
Gillian White (drgillianwhite@yahoo.co.nz)
Hamed Al-Sinawi [hamad.senawi@gmail.com]
Mohammed Al-Shafee (shafae4@omantel.net.om)
Samir Al-Adawi (samir-al-adawi@fulbrightmail.org)
Yousuf Al-Farsi (dr.yousufalkaabi@gmail.com)
Yousuf Al-Kaabi (dryousufalfarsi@gmail.com)

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ABSTRACT

Objective: To evaluate perceptions of being mistreated during internship among first year Oman Medical Specialty Board residents.

Design: A cross-sectional study

Setting: Training ~~centers~~centres for Oman Medical Specialty Board

Participants: First year medical residents following completion of internship. ~~During~~ during the study period 2009 – 2010

Method: A cross-sectional survey of ~~69~~ first year ~~Medical~~medical residents

Results: Of 58 residents (response rate ~~84%~~ around%), 96.6% ~~believed~~perceived that mistreatment exists. Among different types of mistreatment ~~reported~~, verbal and academic ~~abuse was~~abuses were the most ~~commonly reported~~common (87.9%), followed by sexual harassment (24.1%), then physical abuse (22.4%). Forty-four (75.9%) residents had advised at least one of their relatives not to join medical school.

Conclusion: Mistreatment of medical interns is an ethical issue challenging the quality of clinical training. Further research is needed to understand factors influencing mistreatment and draw guidelines to limit such problems.

Key Words: Intern, internship, mistreatment, verbal abuse, physical abuse, academic abuse, sexual harassment, Oman.

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ARTICLE FOCUS

To understand factors influencing mistreatment and to draw guidelines to limit such problems

~~Report~~

To report the perceived experiences of mistreatment among medical trainees in Oman, an Arab/Islamic country.

KEY MESSAGES

The data suggests ~~bullying behavior is rampant among~~ medical trainees in Oman perceived bullying behaviour as common.

STRENGTHS AND LIMITATIONS OF THIS STUDY

Bullying ~~behaviors~~behaviours have been reported in different occupational settings including the medical profession. There is a dearth of study from Arab/Islamic countries.

To our knowledge, this is the first study on ~~this endeavor~~the subject from this part of the world.

This study is limited ~~with~~by the small sample size and ~~its~~ cross-sectional study ~~methodology~~method.

INTRODUCTION:

Forms of abuse and other bullying ~~behaviors~~behaviours have been reported in various occupational settings.¹⁻⁴ Studies carried out in different parts of the world suggest that the medical professionals ~~are~~profession is no exception to the experience of maltreatment within institutional settings. Among various medical professionals who have reported abuse, those who are in the early phase of their careers, likesuch as interns, are the most vulnerable. According to Coverdale, Balon & Roberts, the most common degrading experiences amongfor interns includewere “threats, intimidation, humiliation, excessive criticism, covert innuendo, exclusion or denial of access to opportunity, undue additions to work requirements, and shifting of responsibilities without appropriate notice” (p.269).⁵

~~Studies~~Several studies have quantified mistreatment among medical trainees or those ~~who are~~ on the lower ladder of a medical career. Steven et al.⁶ reported in a national survey in the USA that about 93% of medical trainees endorsed the view that they have had experienced at least one experienceepisode of mistreatment. Another survey undertaken in the UK⁷, reported that around 84% of medical trainees havehad been bullied and about 69% had witnessed bullying and harassment during their clinical placements. Other studies from societies that are similar to Western Europe, North American, and Asia Pacific regions have also found evidence of maltreatment includingsuch as Australia^{4, 8}, New Zealand⁹, Ireland¹⁰, Argentina¹¹ and Japan.¹²⁻¹³

Maltreatment of medical trainees is not limited to Western countries.¹⁴⁻¹⁶ Ahmer et al.¹⁷ have reported pervasive and persistent tendencies for medical trainees in Pakistan to be subjected to ‘disrespectful interactions’, ‘belittlement’, ‘undermining’ and ‘humiliation’. Drawing fromon available literature, Coverdale, Balon & Roberts⁵ have categorized the common forms of maltreatment directed towards medical trainees as verbal abuse or humiliation, nonsexual harassment, sexual harassment, and forms of prejudice against sexual orientation and-or ethnicity.

There is a myriad of adverse impacts of mistreatment that can emergeemerging as a result of trainees being subjected to maltreatment.^{18, 19} Schubert et al.²⁰ have shown a significant relationship between verbal abuse during medical training and lower levels of

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confidence, regardless of sex, race, age or levels of ability and temperament. Richman et al.² studied ~~the~~ mental health ~~consequences among impacts for~~ trainees who were subjected to maltreatment ~~with disconcerting findings~~. There appeared to be ~~disconcerting~~ tendencies for ~~maltreated~~ trainees ~~suffering maltreatment~~ to have 'psychopathological outcomes' in the ~~form forms~~ of unrelenting affective emotions, resorting to 'self-medication' and ~~even~~ dependency on mind altering substances.^{21,22} This is ~~consonant~~ consistent with well-known observations that there are high levels of stress and psychological distress among medical ~~trainees~~.^{23,24} ~~Such prevailing situation trainees~~²³ which have also been suggested ~~to play a~~ role in the ~~observed higher high~~ rate of suicide among physicians ~~compared to the general population~~.^{25,26} There is ~~also an~~ indication that medical trainees who were most distressed at the beginning of their training, ~~and~~ were likely to report ~~more continuing~~ stress and distress in the subsequent course of their lives.²⁷ According to Miedema et al.²⁸, there are ~~inbuilt inherent~~ mechanisms that perpetuate abusive ~~behavior~~ behaviour in the medical culture, including working in what is perceived as a stressful environment. This ~~is~~ ~~suggestion~~ allusion to a view that 'abuse begets abuse'²⁹, ~~a view that~~ might imply the presence of a cycle of bullying ~~in within the~~ medical profession.

In the Arab world, ~~including Oman~~, evidence abounds that much emotional distress is present among medical trainees³⁰⁻³² ~~including Oman~~.³³ ~~Although these Arabian studies should be enlightening~~. However, most of ~~them the~~ studies are rife with conceptual limitations. Many of them have utilized assessment measures without local validity ~~and therefore these studies fall into~~.³⁴ Also, the 'category of fallacy'.³⁴ ~~These studies could also be criticized on the ground that their~~ target population was pre-clinical students. ~~Therefore~~ Consequently, these generalizations cannot be applied to interns. Internship, in ~~medical parlance of the medical profession~~, is the period in which new medical graduates ~~learn medical practices practice~~ in a hospital ~~setting~~ under supervision, prior to beginning ~~his or her a~~ specialization. In Oman, internship consists of three- to four ~~month rotations~~, ~~in during~~ which each intern (resident) is rotated through ~~the fields of~~ general medicine, general surgery and either pediatrics or obstetrics and gynecology. Following internship in Oman, further medical training is conducted under the auspices of ~~the~~ Oman Medical Specialty Board (<http://www.omsb.org>), a

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~~governmental~~government body that is responsible for postgraduate clinical training. An integral part of its function is to oversee the ~~wellbeing~~well-being of trainees, through services that include a specialized office and designated person to ~~which~~whom trainees can submit any grievance.

With evidence ~~of~~adverse experiences among medical trainees ~~or interns~~ in other parts of the world and the fact that no data has been ~~forthcoming from~~produced in Oman, the present study aimed to quantify mistreatment or abuse ~~among of~~ Omani medical interns ~~by seeking responses to their perceptions of abuse~~. Interrelated aims were to explore the level of ~~perceived~~ mistreatment among medical trainees according to gender, perpetrator, and specialty, as well as ~~gauge to~~determining the reasons for not reporting maltreatment, to the concerned authority.

METHODS AND MATERIALS:

Study Population

The study was carried out among first year medical residents following completion of internship. During the study period 2009 – 2010, a total of 69 medical residents were invited to participate ~~in this study~~. The residents were approached ~~to participate in this study~~ during a research workshop conducted in May 2010. Each participant was asked to fill ~~in~~out a questionnaire about their experience and perceptions of mistreatment and abuse with reference to their internship. ~~In the cover letter with~~ The participants were assured in writing that the survey, ~~it was indicated to the participants that this was~~ would be anonymous ~~survey and~~ data gathered would be aggregated, their participation was ~~entirely~~ voluntary ~~and data gathered would be kept confidential~~, and they ~~may~~could withdraw ~~any~~ from the study ~~at any time~~, without prejudice ~~at any time~~. ~~In ease~~. In the event that undue distress was experienced by the participants ~~incur any undue distress~~ while ~~contemplating on the items of the questionnaire~~, mental health ~~responding to sensitive questions~~, counseling support ~~will~~would be ~~duly~~freely provided. The participants were asked not to discuss the ~~questionnaire~~questions among themselves in order to avoid peer influence.

ASSESSMENT MEASURES

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The Likert-type questionnaire was adapted from those developed by Sheehan et al.²⁴, Baldwin et al.³⁵ and ~~Uhari et Uhari~~ et al.³⁶ and focused on indexing 'verbal abuse', 'physical abuse or threats', 'academic abuse' and 'sexual harassment' (Table 1). *Physical Abuse* ~~is was~~ defined as ~~a~~ threat that, if executed, would likely cause physical harm. ~~Other forms~~ *Forms* of physical abuse, ~~such as, included~~ slapping, pushing, hitting, kicking or having objects thrown at ~~the interns are an integral part of the present definition of them.~~ ~~In addition,~~ physical abuse. ~~Physical abuse~~ also ~~entails~~ *entailed* being placed at unnecessary medical risk. *Academic Abuse* ~~is was~~ defined as ~~coercion to carry being coerced into carrying out some~~ personal services unrelated to the expected role of interns. The concept of academic abuse also ~~encapsulates~~ *encapsulated* instances in which interns ~~being were~~ excluded from ~~otherwise~~ reasonable learning opportunities offered to others, or ~~are~~ threatened with failure or poor evaluations for reasons unrelated to ~~one's~~ academic performance. *Sexual Harassment* ~~is was~~ defined ~~in the following terms: as~~ being subjected to jokes or comments against ~~one's~~ gender or body figure. ~~Sexual harassment entails or~~ being subjected to repeated leering or offered unwanted gifts. ~~Being offered with sexual underpinnings. The offer of private tutorial sessions or better grades in exchange for an extra-marital illicit affair as well as inappropriate touching of a sexual nature constitute also constituted~~ examples of sexual harassment.

~~Various~~ *A variety of* socio-demographic ~~information (e.g. data was sought from the participants, e.g. age, sex, year of residency, marital status and current specialty) was also sought from the consenting participants. The participants. They~~ were also given the ~~option to use free text opportunity~~ to describe reasons for reporting or not reporting maltreatment. ~~using free text.~~

The questionnaire was delivered to each participant in a closed envelope, which also contained a description of the study, along with a ~~statement of~~ *written assurance of* ~~anonymity and~~ confidentiality so that informed consent could be obtained. ~~To assure anonymity, participants~~ *Participants* were explicitly informed not to make any reference to their identity on the questionnaire. ~~Written consent was not required, as the participants were informed that return of a completed questionnaire constituted consent to participate. The right not to answer some questions was also explained.~~

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ANALYSIS

~~Both descriptive~~ Descriptive statistics ~~as~~ (raw counts and ~~percentage are presented~~ percentages) were calculated. The free narrative was assessed using thematic analysis.

The study was approved by the local institutional review board (IRB), and the Research and Ethics Committee of College of Medicine and Health Sciences, Sultan Qaboos University (MREC#382)

RESULTS

The results are presented first as simple demographics of the sample and then in relation to the aims of the study. The response rate was 84.2% (58/69 ~~residents~~) of which 30 (51.7%) were female and 28 (48.3%) were male. Their ages ranged from 25 to 35 years (mean of 27.83 yrs and standard deviation of 1.63 yrs).

Experience of Mistreatment according to Gender

Table 1 shows ~~perceived experience of~~ maltreatment according to gender. ~~Out~~ In 6 ~~out of total~~ 12 items eliciting maltreatment, males dominated ~~in 6 of them~~. However, no statistical differences were found between genders on any one item. When each form of maltreatment was collapsed into 'verbal abuse', 'physical abuse or threats', 'academic abuse', and 'sexual harassment', the only category of statistical significance at the 95% confidence level was 'academic abuse' where the males reported higher levels of mistreatment ($p \leq 0.004$).

Experience of Mistreatment according to Perpetrator

As shown in Table 2, Consultants outshone others in ~~perpetuating~~ perpetrating verbal abuse and physical abuse. They were also more likely to be guilty of academic abuse toward ~~the male residents~~ males, when interns ($p = 0.03$). Consultants and Specialists together were implicated in academic abuse and sexual harassment more than ~~the other groups that the residents~~ encountered by the participants.

Experience of Mistreatment according to Specialty

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Three specialties (medicine, surgery, pediatrics) were scrutinized for variations in ~~dispensing~~ maltreatment to ~~the~~ residents when they were interns. As shown in Table 3, the data can be extrapolated in three ways. Firstly, all indices of maltreatment were significantly higher during medical rotation than pediatricsin pediatric or surgerysurgical rotations ($p = 0.005$). ~~Secondly, pediatrics~~Maltreatment experienced in the pediatric rotation was second highest ~~in dispensing maltreatment~~. Thirdly, ~~verbal abuse was~~ the highest type of maltreatment reported was verbal abuse (36.8%), closely followed by academic abuse (35%).

Reasons for not reporting Maltreatment

The major reason for not reporting maltreatment elicited from the free text responses was 'to avoid further troubletrouble', as the Residentsresidents believed that "Reporting reporting could adversely affect evaluation and professional career." Such behaviorbehaviour, out of fear, could be seen as secondary abuse. Some respondents did not know how to deal with the problem or preferred to deal with the maltreatment themselves as they "did not know whom to report to or how to make the complaint." Seven respondents did not report the maltreatment because the perpetrator had "apologized" to them. It was ~~also~~ not uncommon to ~~not recognize~~ "deny the experience as abuse "at the time it happened."

DISCUSSION

To our knowledge, the present research is the first in Arab countries to describe four interrelated patterns in relation to maltreatment, from the experience of first year medical residents in Arab countries: concerning their internship. These patterns included the gender of the victim, types of maltreatment, specialty rotation where maltreatment occurred, and reasons for not reporting maltreatment. Although the intended population was small, the rate of response to the survey was high and the gender distribution of participants was fairly balanced. Most of the participants were undertaking a medical specialty and were in their late twenties. Pending further scrutiny ~~as~~, this shouldstudy could be viewed as a pilot ~~study or sentinel. This~~. However, the survey indicates

often comes from nonmedical staff, but according to Hinze⁴⁴ and ~~Ahmer et Ahmer~~ al.¹⁷ senior medical staff were not innocent ~~either. However, this. This current~~ preliminary study suggests that hierarchy is strongly associated with the propensity to dispense abuse. It is possible that such occurrences ~~may~~ stem from cultural patterning. While social ~~institution~~ institutions in Western Europe and North American countries have explicitly made corporal punishment, as retribution for ~~an~~ academic ~~misbehavior~~ misbehaviour, unacceptable (a view ~~is~~ enshrined in legal and judicial ~~systems~~ systems), some reports have noted ~~occurrence~~ that occurrences of aggressive ~~acts~~ acts toward junior doctors still occur.⁴⁵ It is possible that senior members, ~~the~~ traditional ~~teacher~~ teachers, or father-~~figure~~ figures demand filial obedience from ~~the~~ students— (in this case junior doctors). However, notwithstanding such a view, it ~~appears~~ does appear that maltreatment of novices in the medical profession ~~exists~~ remains in many societies, including those that do not prescribe to the cultural patterning common in Oman.^{4,46} ~~Therefore~~ In consequence, factors within the medical culture itself need to be explored in order to devise evidence-based interventions to mitigate ~~senior members abusing the~~ abuse of junior ~~ones~~ members by their seniors.

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Knowing which ~~type~~ types of abuse ~~comes~~ come from which ~~source~~ enables sources enables educators to focus their resources ~~to prevent~~ on preventing maltreatment, ~~although~~ Cook, ~~Liutkus and Liutkus~~ and Risdon⁴⁷ have suggested that there is no ‘magic-bullet’ to mitigate the prevailing maltreatment of medical trainees. ~~One~~ A possible ~~venue~~ is strategy, however, would be to institute mandatory courses for medical staff on awareness about the consequences of abuse and maltreatment. Medical schools and health care systems should also have inbuilt mechanisms where victims of abuse can air their grievances confidentially without consequently jeopardizing their careers.

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~~Some~~ There are some obvious caveats ~~are~~ imperative to mention. ~~This regarding this study. The~~ data ~~presents~~ present residents’ self-responses. Such a method of eliciting information ~~is likely to be rife with~~ has methodological ~~deficit~~ deficits. Self-serving biases are well known in ~~such~~ self-report studies.⁴⁸ ~~It is also possible that recall bias could have contaminated their~~ responses.⁴⁹ ~~An integral part of recall bias, is that when individuals find~~ perceive certain events as ~~emotionally~~ emotionally debilitating, the ~~obvious~~ recourse is often to repress the memory of those events. ~~Therefore, future studies~~ Future

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8 investigations should have ~~an in a~~ built-in mechanism to reduce the likelihood of recall
9 bias. Secondly, some insidious cultural factors are likely to ~~play~~ factor in the present
10 observation study. The Omani culture is known to be a culture of honor and ‘shame’,
11 which means that many of life’s maltreatments are ~~likely to be~~ ‘concealed’.⁵⁰ Despite the
12 anonymous nature of the present study, it is possible that incidences of sexual harassment
13 or maltreatment were ~~likely to be~~ ‘denied’, resulting in spurious data.
14 ~~Despite~~ Notwithstanding the above-mentioned caveats, interesting issues have emerged
15 from the present study that ~~needs~~ need to be followed up in a wider context. Finally, the
16 lack of qualitative data in a phenomenological study examination of perceived experience
17 is likely to represent a major limitation of this study in particular in a population where
18 such ~~studies~~ investigations have not yet been forthcoming. Therefore, in ~~studies~~ research
19 eliciting perceived experiences on cross-cultural samples, inclusion of qualitative
20 research methodology such as interviews ~~are~~ is likely to yield more fruitful results.⁵⁰
21 Such ~~undertaking~~ undertakings would ~~have laid~~ lay the groundwork for more meaningful
22 quantitative research instruments. Thereby, the present finding could be scrutinized with
23 studies that have included some interviews or focus groups so that the participants’
24 interpretations could be explored in depth.

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33 Finally, the lack of qualitative data may represent a major limitation, particularly
34 where such studies have not been undertaken before. Studies eliciting perceived
35 experiences on cross-cultural samples benefit from the inclusion of qualitative research
36 methods such as interviews or focus groups which yield more in-depth findings⁵⁰, and
37 can lay the groundwork for developing more meaningful quantitative research
38 instruments. If the present study had included some interviews or focus groups, so that
39 the participants’ interpretations could be explored in depth, a greater understanding of the
40 phenomenon could have been explicated and compared with other studies of a similar
41 nature.

42 43 44 45 46 47 **CONCLUSION**

48
49 ~~Mistreatment~~ According to the literature, mistreatment of medical interns is
50 emerging as a global challenge. To our knowledge, this is the first study from the Arabian
51 Gulf that explores the perception of maltreatment and abuse in a medical setting. Fifty
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8 eight residents (84%) consented to participate in this ~~present anonymous~~ survey which
9 ~~consisted of approximately 84% of the~~ concerning their experiences as interns. ~~In terms of~~
10 ~~experience of mistreatment according to gender, The ratio of males admitted to~~
11 ~~have females in this group, who were in their late twenties, was representative of the~~
12 ~~target population. Males responded that they had~~ experienced higher levels of ~~perceived~~
13 ~~mistreatment than females, particularly regarding academic abuse.~~ In terms of the
14 perpetrator ~~of harassment and abuse, it appears that~~ hierarchy counts. ~~Those appeared to~~
15 ~~dominate, as those~~ who were commanding higher positions were more ~~prone to fall~~
16 ~~four likely to committing~~ commit maltreatment ~~and (such as academic abuse. It) and abuse~~
17 ~~(such as sexual harassment). Problems~~ also appeared ~~that the problems were~~ more
18 ~~rampant widespread~~ in the ~~subspecialists~~ sub-specialty of medicine. ~~Further research is~~
19 ~~needed to understand factors influencing mistreatment and draw up guidelines to limit~~
20 ~~such problems. However the Reporting~~ maltreatment was uncommon thus documented
21 ~~data does not exist to support evidence of abuse. In this study, therefore, only perceptions~~
22 ~~of maltreatment could be elicited, reasons for not reporting being focused on fear of~~
23 ~~further trouble.~~

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31 The findings ~~from this pilot study~~ should ~~lead to the~~ encourage further
32 identification of factors ~~perpetuating that~~ perpetuate maltreatment and abuse among
33 medical ~~trainee~~ interns. ~~Thus, More~~ extensive research is needed, ~~however, to understand~~
34 ~~those factors in order to draw up guidelines that will limit such problems and provide~~
35 ~~evidence-based interventions can be contemplated, appropriate for the context of Oman.~~

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45 of this article.

46
47 **Competing interests:** None

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49 **Participant consent:** Obtained.

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51 **Ethics approval:** Ethics approval was provided by the local institutional review board
52 (IRB), Research and Ethics Committee of College of Medicine and Health Sciences,
53 Sultan Qaboos University (MREC#382)

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ConflictsConflict of interest: ~~none~~None

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Contributors

M-AS is responsible for study supervision, - T-AK and Y-AF are responsible for study concept and design and data collection, A-AM is responsible for integrity of the data and the accuracy of the data analysis and GW, -H--AS and S-AA were responsible for drafting, the literature review and scientific approach ~~o~~fto the write-up.

REFERENCES:

1. Borg MG. The extent and nature of bullying among primary and secondary schoolchildren. *Educ Res* 1999; 41:137-53.
2. Richman JA, Rospenda KM, Nawyn SJ, F et al. Sexual harassment and generalized workplace abuse among university employees: Prevalence and mental health correlates. *Am J Public Health* 1999; 89:358-63.
3. Maida AM, Vasquez A, Herskovic V, et al. A report on student abuse during medical training. *Med Teach* 2003; 25:497-501.
4. White GE: Sexual harassment during medical training: the perceptions of medical students at a university medical school in Australia. *Med Educ* 2000; 34:980-86.
5. Coverdale JH, Balon R, Roberts LW. Mistreatment of trainees: verbal abuse and other bullying ~~behaviors~~behaviours. *Acad Psychiatry* 2009; 33:269-73.
6. Daugherty SR, Baldwin DC Jr, Rowley BD. Learning, satisfaction, and mistreatment during medical internship: a national survey of working conditions. *JAMA* 1998; 279:1194-9.
7. Quine L. Workplace bullying in junior doctors: questionnaire survey. *BMJ* 2002; 324:878-9.
8. Askew DA, Schluter PJ, Dick ML, et al. Bullying in the Australian medical workforce: cross-sectional data from an Australian e-Cohort study. *Aust Health Rev* 2012; 36:197-204.
9. Scott J, Blanshard C, Child S. Workplace bullying of junior doctors: cross-sectional questionnaire survey. *N Z Med J* 2008 Sep 22; 121:10-4.
10. Finucane P, O'Dowd T. Working and training as an intern: a national survey of Irish interns. *Med Teach* 2005; 27:107-13.
11. Mejía R, Diego A, Alemán M, et al. Perception of mistreatment during medical residency training. *Medicina (B Aires)* 2005; 65: 295-301.

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12. Nagata-Kobayashi S, Maeno T, Yoshizu M, et al. Universal problems during residency: abuse and harassment. *Med Educ* 2009; 43:628-36.
13. Nagata-Kobayashi S, Sekimoto M, Koyama H, et al. Medical student abuse during clinical clerkships in Japan. *J Gen Intern Med* 2006; 21:212-8
14. Yildirim D, Yildirim A, Timucin A. Mobbing ~~behaviors~~behaviours encountered by nurse teaching staff. *Nurs Ethics* 2007; 14:447-63.
15. Bairy KL, Thirumalaikolundusubramanian P, Sivagnanam G, et al. Bullying among trainee doctors in Southern India: a questionnaire study. *J Postgrad Med* 2007; 53:87-90.
16. Imran N, Jawaid M, Haider II, et al. Bullying of junior doctors in Pakistan: a cross-sectional survey. *Singapore Med J* 2010; 51: 592-95.
17. Ahmer S, Yousafzai AW, Siddiqi M, et al. Bullying of trainee psychiatrists in Pakistan: a cross-sectional questionnaire survey. *Acad Psychiatry* 2009; 33:335-39.
18. Dyrbye LN, Harper W, Moutier C, Durning SJ, Power DV, Massie F, et al. A multi-institutional study exploring the impact of positive mental health on medical students' professionalism in an era of high burnout. *Acad Med* 2012; 87: 1024-1031.
19. Dyrbye LN, Massie FS Jr, Eacker A, Harper W, Power DV, Durning S, Thomas MR, Moutier C, Satele D, Sloan JA, Shanafelt TD. ~~Relationship between Burnout and Professional Conduct and Attitudes among US Medical Students~~²Students. *JAMA*, 2010; 304:1173-1180.
20. Schuchert MK. The relationship between verbal abuse of medical students and their confidence in their clinical abilities. *Acad Med* 1998; 73: 907-9.
21. Dyrbye LN, Thomas MR, Massie FS, Power DV, Eacker A, Harper W, Durning S, Shanafelt TD. Burnout and suicidal ideation among U.S. medical students. *Ann Intern Med* ~~Med 2008~~Med2008; 149; 334-341.
22. Bhan, A. Substance abuse among medical professionals: A way of coping with job dissatisfaction and adverse work environments. *Indian J Med Sci* 2009; 63: 308-309.
23. Dyrbye LN, Thomas MR, Shanafelt TD. Medical student distress: causes, consequences, and proposed solutions. *Mayo Clin Proc* 2005; 80:1613-22.

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24. Sheehan KH, Sheehan DV, White K, et al A pilot study of medical student 'abuse'. Student perceptions of mistreatment and misconduct in medical school. *JAMA* 1990; 263:533-37.
25. Aasland OG, Hem E, Haldorsen T, et al. Mortality among Norwegian doctors 1960-2000. *BMC Public Health* 2011; 11:173.
26. Petersen MR, Burnett CA. The suicide mortality of working physicians and dentists. *Occup Med (Lond)* 2008; 58: 25-29.
27. Tartas M, Walkiewicz M, Majkowicz M, et al. Psychological factors determining success in a medical career: a 10-year longitudinal study. *Med Teach* 2011; 33: e163-72.
28. Miedema B, MacIntyre L, Tatemichi S, et al. How the medical culture contributes to coworker-perpetrated harassment and abuse of family physicians. *Ann Fam Med* 2012; 10: 111-17.
29. Al-Adawi S, Al-Bahlani S Domestic violence: "What's love got to do with it?": Sultan Qaboos Univ Med J. 2007;7:-5-14.
30. Ahmed I, Banu H, Al-Fageer R, et al. Cognitive emotions: Depression and anxiety in medical students and staff. *J Crit Care* 2009; 24:e1-7.
31. Al-Saleh SA, Al-Madi EM, Al-Angari NS, et al. Survey of perceived stress-inducing problems among dental students, Saudi Arabia. *Saudi Dent J* 2010; 22:83-8.
32. Al-Dabal BK, Koura MR, Rasheed P, et al. A comparative study of perceived stress among female medical and non-medical university students in Dammam, Saudi Arabia. *Sultan Qaboos Univ Med* 2010; 10:231-40.
33. Al-Busaidi Z, Bhargava K, Al-Ismaily A, et al. Prevalence of Depressive Symptoms among University Students in Oman. *Oman Med J* 2011; 26:235-39.
34. Al-Adawi SS. Re: Comparative study of Perceived Stress among Female Medical and Non-Medical University Students in Dammam, Saudi Arabia. *Sultan Qaboos Univ Med J* 2010; 10:410-11.
35. Baldwin DC Jr, Daugherty SR, Eckenfels EJ: Student perceptions of mistreatment and harassment during medical school: a survey of ten United States schools. *West J Med* 1991, 155:140-145.
36. Uhari M, Kokkonen J, Nuutinen M, Vainionpää L, Rantala H, Lautala P, Väyrynen M: Medical student abuse: An international phenomenon. *JAMA* 1994, 271:1049-1051.

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- 9
- 10 37. Einarsen S, Raknes BI: Harassment in the workplace and the victimization of
- 11 men. *Violence Vict* 1997; 12:247-63.
- 12
- 13 38. Richman JA, Flaherty JA, Rospenda KM, et al. Mental health consequences and
- 14 correlates of reported medical student abuse. *JAMA* 1992; 267:692-4.
- 15
- 16 39. Eloul L, Ambusaidi A, Al-Adawi S. Silent Epidemic of Depression in Women in
- 17 the Middle East and North Africa Region: Emerging tribulation or fallacy? *Sultan*
- 18 *Qaboos Univ Med J* 2009; 9: 5-15.
- 19
- 20 40. Nora LM, McLaughlin MA, Fosson SE, et al. Gender discrimination and sexual
- 21 harassment in medical education: perspectives gained by a 14-school study. *Acad*
- 22 *Med* 2002; 77:1226-34.
- 23
- 24 41. Larsson C, Hensing G, Allbeck P: Sexual and gender-related harassment in
- 25 medical education and research training: results from a Swedish survey. *Med*
- 26 *Educ* 2003, 37:39-50.
- 27
- 28 42. Wikan U. *Behind the Veil in Arabia: Women in Oman*. Chicago: University of
- 29 Chicago Press, 1991.
- 30
- 31 43. Alshishtawy M. Re: Afghanistan and Oman: Personal reflections on a profound
- 32 contrast. *Sultan Qaboos Univ QaboosUniv Med J* 2010; 10:272-275.
- 33
- 34 44. Hinze SW. 'Am I being over-sensitive?' Women's experience of sexual
- 35 harassment during medical training. *Health (London)* 2004; 8:101-27.
- 36
- 37 45. Madhiwalla N, Roy N. Assaults on public hospital staff by patients and their
- 38 relatives: an inquiry. *Indian J Med Ethics* 2006, 3; 51-54.
- 39
- 40 46. Moscarello R, Margittai KJ, Rossi M. Differences in abuse reported by female
- 41 and male Canadian medical students. *Can Med Assoc J* 1994; 150: 357-63.
- 42
- 43 47. Cook DJ, Liutkus JF, Risdon CL, et al. Residents' experiences of abuse,
- 44 discrimination and sexual harassment during residency training. *McMaster*
- 45 *University Residency Training Programs. Can Med Assoc J* 1996; 154:1657-65.
- 46
- 47 48. Mezulis AH, Abramson LY, Hyde JS, Hankin BL. Is there a universal positivity
- 48 bias in attributions? A meta-analytic review of individual, developmental, and
- 49 cultural differences in the self-serving attributional bias. *Psychol Bull* 2004;
- 50 130:711-47.
- 51
- 52 49. Coughlin SS. Recall bias in epidemiologic studies. *J Clin Epidemiol* 1990; 43:87-
- 53 91.
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50. Dwairy M, Van Sickle T.D. Western psychotherapy in traditional Arabic societies. *Clin Psychol Rev.* 1996; 16: 231-49.
51. Al-Adawi S, Al-Busaidi Z, Al-Adawi SS, Burke DT. Families Coping With Disability Due to Brain Injury in Oman: Attribution to Belief in Spirit Infestation and Ensorcellment. *SAGE Open* July-September 2012: 1-8 DOI: 10.1177/2158244012457400.

Table 2: Medical trainees reporting different types of mistreatments according to sources/perpetrators

	Verbal Abuse			Physical Abuse			Academic Abuse			Sexual harassment		
	♂	♀	Total	♂	♀	Total	♂	♀	Total	♂	♀	Total
▲ Consultants	21 (75%)	17 (56.7%)	38 (65.5%)	4 (14.3%)	3 (10%)	7 (12.1%)	18 (64.3%)	11 (36.7%)	29 (50%)	4 (14.3%)	5 (16.7%)	9 (15.5%)
▲ Specialists	9 (32.1%)	10 (33.3%)	19 (32.8%)	1 (3.6%)	2 (6.7%)	3 (5.2%)	16 (57.1%)	14(46.7%)	30 (51.7%)	4 (14.3%)	6 (20%)	10 (17.2%)
▲ Resident	4 (14.3%)	1 (3.3%)	5 (8.6%)	0	0	0	3 (10.7%)	4 (13.3%)	7 (12.1%)	2 (7.1%)	1(3.3%)	3 (5.2%)
▲ Nurses	6 (21.4%)	12(40%)	18 (31%)	1 (3.6%)	4(13.3%)	5 (8.6%)	7 (25%)	7 (23.3%)	14 (24.1%)	2 (7.1%)	0	2 (3.4%)
▲ Patients/Relative	5 (17.9%)	7(23.3%)	12 (20.7%)	1 (3.6%)	2(6.7%)	3 (5.2%)	2 (7.1%)	2 (6.7%)	4 (6.9%)	1 (3.6%)	1 (3.3%)	2 (3.4%)
▲ Others	1 (3.6%)	2(6.7%)	3 (5.2%)	0	0	0	1 (3.6%)	0	1 (1.7%)	0	0	0

♂ = Male
♀ = Female

Table 3: Medical Trainee Reporting Mistreatment according to Specialty

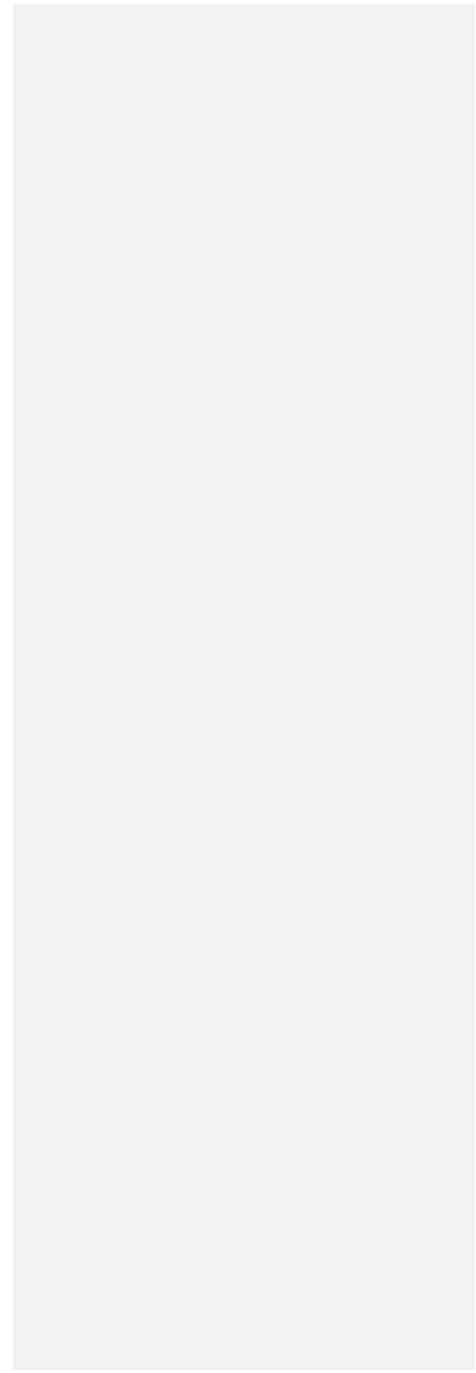
	ALL (n=58)	MEDICINE	SURGERY	PEDIATRICS
VERBAL ABUSE		32(55.2%)	17(29.3%)	15(25.9%)
Shouted at you	29 (50%)	20(62.5%)	11(64.7%)	9(60%)
Belittled or humiliated you during meetings or rounds	32 (55.2%)	21(65.6%)	10(58.8%)	13(86.7%)
Spoke to you un-respectfully	27 (46.6%)	18(56.2%)	8(47.1%)	11(73.3%)
PHYSICAL ABUSE OR THREATS		11(19%)	1(1.7%)	3(5.2%)
Threatened you with physical harms	7 (12.1%)	11(100%)	1 (100%)	3 (100%)
ACADEMIC ABUSE		35(60.3%)	17(29%)	9(15.5%)
You were asked to carry out some personal services unrelated to patient care or educational activities	17 (29.3%)	13(37.1%)	7(41.2%)	5(55.6%)
Your questions/queries were intentionally not answered	17 (29.3%)	10(28.6%)	9(52.9%)	3(33.3%)
You were forced to refer patient without providing reasonable cause for referral	30 (51.7%)	21(60%)	11(64.7%)	5(55.6%)
You were ask to take consent from very complicated cases	27(46.6%)	20(57.1%)	10(58.8%)	4(44.4%)
You were threatened with failure or giving poor evaluations for reasons unrelated to your academic performance	15(25.9%)	10(28.6%)	4(23.5%)	5(55.6%)
SEXUAL HARASSMENT		10(17.2%)	7(12.1%)	4(6.9%)
Received jokes or comments against your gender (M/F)	9 (15.5%)	5(50%)	5(71.4%)	2(50%)
Received compliments or comments about your body or figure	7 (12.1%)	4(40%)	3(42.9%)	1(25%)
Faced with an offensive body language (e.g. repeated leering, standing too close)	7 (12.1%)	6(60%)	1(14.3%)	2(50%)

Table 4: Medical trainees' narrative for either reporting reason or not reporting maltreatment

Reason/s for not reporting such abuse	%
1. I did not recognize the experience as an abuse at the time that it happened	N=19/58 (32.8%)
2. It was not significant to be reported to those in authority	N=19/58 (32.8%)
3. Reporting such abuse or mistreatment would not accomplish anything	N=24/58 (41.4%)
4. Reporting such mistreatment or abuse would become more troublesome than it was worth	N=25/58 (43.1%)
5. I dealt with the problem directly myself	N=13/58 (22.4%)
6. I did not know to whom I should report or how to complain	N=10/58 (17.2%)
7. I was afraid that reporting such abuse would adversely affect my evaluation or my professional career in future	N=24/58 (41.4%)
8. The abuser apologized to me	N=7/58 (12.1%)
9. I was afraid of not being believed or the problem would not be dealt fairly	N=8/58 (13.8%)
10. I was afraid that the reporting would not be kept confidential	N=17/58 (29.3%)

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For peer review only



1 2 3 4 5	FROM THE MANAGING EDITOR:	Authors
6 7 8 9 10 11 12 13 14 15 16 17 18	I greatly appreciate the effort that has been put in to the language editing of the paper. Unfortunately I think one further round of revision is required. The biggest problem is the purpose of the paper is not very clear. The abstract states that the objective is 'To evaluate perceptions of being mistreated during internship among first year Oman Medical Specialty Board residents.' So the abstract is clear that what is being measured is the perception of mistreatment - which is not mistreatment itself.	The word 'perceived' has been added as an adjective in various appropriate parts of the article
19 20 21 22 23 24 25 26	However the conclusion to the abstract is all about the prevalence of mistreatment (in this respect, matching the title). The conclusion is also very general - it should relate more specifically to the conclusions of the study.	A few more specific details have been added to the conclusion. The conclusion moves from specific to general – as most maltreatment is not documented it has been made clear that we can only go on perceptions.
27 28 29 30 31 32	The article focus goes much broader - it says that the focus is 'To understand factors influencing mistreatment and to draw guidelines to limit such problems'. These are two completely different research questions that don't match the abstract.	The text has been revised to accommodate such request.
33 34 35 36 37 38 39 40 41 42 43 44	In the introduction you then say 'the present study aimed to quantify mistreatment or abuse of Omani medical interns. Interrelated aims were to explore the level of mistreatment among medical trainees according to gender, perpetrator, and specialty, as well as determine the reasons for not reporting maltreatment to the concerned authority'; the first of these aims has been covered before but quantifying mistreatment is not the same as surveying perceptions of having been mistreated.	The word 'perceived' has been placed before 'mistreatment'. This addition should satisfy the concern about 'quantifying' mistreatment
45 46 47 48	So - you need to make the title, abstract, key messages and introduction consistent	Done
49 50 51 52	The results, discussion and tables then need to be clear about whether you are reporting actual cases of mistreatment or perceptions of mistreatment.	Done
53 54 55 56 57 58 59 60	Please also check the English one more time; for example it is not clear what you mean by 'the category of fallacy'.	We have sought help from a native English speaker. As it causes confusion, reference to 'category of fallacy' has been deleted

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