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# BMJ Open

## Working in the shadow: The role of security guards in health care – A protocol for a systematic review.

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Manuscripts

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4 1 **Working in the shadow: The role of security guards in health care – A protocol for a systematic**  
5 2 **review**

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3 26 **Working in the shadow: The role of security guards in health care – A protocol for a systematic**  
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5 27 **review**

6  
7 28 **Abstract**

8  
9 29 **Introduction:** There is a paucity of literature on the comprehensive roles of security guards in health care,  
10  
11 30 regardless of day-to-day observations of security guards playing an extensive role in this field. Thus, this  
12  
13 31 review will systematically explore the roles of security guards in health care contexts to create a centred  
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15 32 body of evidence.

16 33 **Methods and analysis:** The study will systematically review existing quantitative and qualitative peer-  
17  
18 34 reviewed literature on security guards in institutional health care so as to understand their roles. We will  
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20 35 conduct the systematic review on 10 electronic databases: Biomed Central, SocIndex, ScienceDirect,  
21  
22 36 Google Scholar, JSTOR, PsycARTICLES, PsycINFO, Scopus, Web of Science and Pubmed. Data  
23  
24 37 extraction will be in the form of a word document. Mendeley software will be used to keep track of  
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26 38 references, while the systematic review software, Rayyan, will be used for the screening, inclusion and  
27  
28 39 exclusion of articles. If necessary, reviewer number three will conduct a third review should any disputes  
29  
30 40 arise between the two initial reviewers. Quality assessment of the articles will be measured with the Critical  
31  
32 41 Appraisal Skills Programme (CASP) tool for articles in terms of the research aims, methodology used,  
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34 42 sample, data analysis, presentation of findings, values of the research, as well as trustworthiness if it is a  
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36 43 qualitative study or reflexiveness if it is a quantitative study. Studies dating back 32 years will be  
37  
38 44 incorporated for a comprehensive review.

35 45 **Ethics and dissemination:** This systematic review will use publicly available peer-reviewed data from  
36  
37 46 electronic databases and will therefore not require an ethical review, but rather, an ethics waiver. The  
38  
39 47 systematic review protocol will be submitted for ethics waiver clearance from the Stellenbosch University  
40  
41 48 Health Research Ethics Committee. The findings from this review will be disseminated through peer-  
42  
43 49 reviewed publications and conferences.

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44 50 **PROSPERO registration number:** CRD42022353653

45  
46 51 **STRENGTHS AND LIMITATIONS OF THIS STUDY**

- 47  
48 52 • This systematic review will provide a comprehensive overview of the roles security guards play  
49  
50 53 in health care institutions, a topic that has to date received little attention.
- 51 54 • With the aim of providing a comprehensive overview, both quantitative and qualitative studies  
52  
53 55 will be included.

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3 56 • In addition to the multidisciplinary databases, the reference sections of the included studies will  
4 57 be searched to find relevant articles that were missed by the search engines or not listed in the  
5 58 selected databases.  
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8 59 • The implementation and reporting of the systematic review will follow the Preferred Reporting  
9 60 Items for Systematic Review and Meta-Analysis Protocols (PRISMA-P) to ensure transparency  
10 61 and accuracy.  
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13 62 • Studies which are published in languages other than English will not be included. This limitation  
14 63 can lead to a linguistically caused bias.  
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## 64 **Introduction**

### 65 ***Background***

66 Many health care facilities employ security guards as part of their security strategy.<sup>1</sup> Adeniyi and Puzi<sup>2</sup>  
67 attribute this to violent and aggressive behaviours that are not uncommon in many health care institutions,  
68 including hospitals and psychiatric and emergency units.<sup>3-6</sup> Such behaviours are amongst the key reasons  
69 for the employment of security guards.<sup>7</sup> Other reasons include the protection of valuable property held in  
70 health care facilities, public visitation control and perimeter patrols to protect the privacy and dignity of  
71 patients, and the provision of information in large facilities regarding where to find particular wards or units  
72 and the rules of visitation and entry. Security guards filter access control and protect the institution through  
73 the checking of visitor appointment cards and entry to the correct facility within institutions.<sup>8</sup>

74 An important function of security guards is safety intervention when patients threaten to harm themselves,  
75 staff, or other patients, or when there is a need for physical restraint or de-escalation.<sup>1,9</sup> Thus, a key role is  
76 to ensure patient and staff safety by managing violent and aggressive behaviour.<sup>10-12</sup>

77 Security guards are more likely than health care professionals to be injured at work, with many attacks  
78 occurring at night. Clearly, they are on the front line, commonly being deployed to reinforce the overall  
79 security programme of health facilities and being called in to situations of elevated risk.<sup>13</sup> In a study on  
80 security guards in Finland, 39% reported at least one incident of verbal aggression against them per month,  
81 19% reported at least one threat of physical aggression per month and 15% experienced at least one act of  
82 physical aggression per month.<sup>14</sup>

83 In addition to the official tasks that security guards are contracted for, they may also take on other roles,  
84 even if informally.<sup>15</sup> It is clear, therefore, that security guards take on numerous roles and perform several  
85 tasks, including, in some instances, tasks for which they are not adequately trained.<sup>16</sup> For instance, security  
86 guards may be asked to perform the role of informal interpreters when clinicians are not able to  
87 communicate with patients who speak languages which clinicians do not understand.<sup>17,18</sup> A study,  
88 conducted in South Africa at a psychiatric hospital, investigated the potential consequences for diagnostic  
89 assessments mediated by ad hoc interpreters who were employed as health care workers and household  
90 aides. The study found errors in the interpretations, which consequently affected the goals and outcomes of  
91 the clinical sessions, some potentially resulting in incorrect diagnoses of the severity of patient psychiatric  
92 illness. Within the context of the current research protocol, security guards may be assigned to carry out  
93 informal interpreting in the absence of training and support in interpreting skills, and, in addition, these  
94 security guards may be unfamiliar with technical medical and psychiatric terminology.<sup>17</sup>

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3 95 Sefalafala and Webster<sup>19</sup> note that security guards are often amongst the lower paid staff members at a  
4 96 health care facility. Given these pressures, some studies suggest that security guards may be prone to  
5 97 behavioural problems and mental health problems such as substance abuse, antisocial behaviour, physical  
6 98 aggression, and anger.<sup>20</sup> Notwithstanding, it appears that little attention has been given to the work of  
7 99 security guards in health care despite the fact that security guards are part of the broader health care  
8 100 workforce.<sup>20</sup>

13 101 This review seeks to systematically examine and synthesise research on the role of security guards in health  
14 102 care. To our knowledge, this will be the first review on this topic. We aim to understand critical processes  
15 103 and outcomes related to the use of security guards in health care. It is possible that the review may lead to  
16 104 recommendations for adequate training and support for this cadre of workers, as well as guidelines and  
17 105 policy recommendations.

## 21 106 **Methods and analysis**

### 23 107 *Types of studies*

25 108 Qualitative, quantitative and mixed method studies on the roles of security guards will be incorporated in  
26 109 this review. Scientific studies published in English will be included. Any studies reporting on the roles of  
27 110 security guards and their experience of these roles will be included. There is no geographical restriction –  
28 111 we will search for studies from high-, middle- and low-income countries. All studies included must have  
29 112 been peer-reviewed.

### 34 113 *Type of participants*

36 114 Studies must report on the roles and experiences of security guards but there are no other restrictions, for  
37 115 example, studies on health care workers' perceptions of the roles and experiences of security guards will  
38 116 be included.

### 41 117 *Search methods for identification of studies*

43 118 We will conduct the systematic review on 10 electronic databases: Biomed Central, SocIndex,  
44 119 ScienceDirect, Google Scholar, JSTOR, PsycARTICLES, PsycINFO, Scopus, Web of Science and  
45 120 Pubmed. Data extraction will be in the form of a Word document. Mendeley referencing software will be  
46 121 used to manage searched articles, thereafter transferred to the systematic review software, Rayyan, where  
47 122 duplicates will be removed. Screening, inclusion and exclusion of articles will be carried out using Rayyan.  
48 123 Two reviewers will review each study independently. Where there are disagreements across reviewers, a  
49 124 third reviewer will carry out an independent review to resolve differences. We have developed a search  
50 125 strategy that will be adapted to different search engines. In addition to database search results, reference

126 sections of the included journal articles will be reviewed to identify any relevant articles that were missed  
 127 by search engines.

128 A title search will be conducted using the study's keywords, and these will be documented on the title  
 129 extract and abstract search list. Only articles that fulfil the title inclusion criteria will advance to the second  
 130 level, which is the abstract search. Articles included will be appraised using the Critical Appraisal Skills  
 131 Programme (CASP) tool,<sup>21</sup> and then extracted.

### 132 ***Search strategy***

133 The keywords listed in Table 1 will guide the searches. These strings will be expanded based on the  
 134 information retrieved from selected articles.

### 135 **Table 1**

#### 136 **Search strings for electronic databases**

<b>Concept A: Security guards</b>	<b>Concept B: Health care</b>
Within Concept A, terms used will include: "security guards" OR "security officers" OR "patrol officers" OR "attendant" OR "manhandle" OR "patient watch" OR "supervision" OR "management" OR "hospital safety" OR "policing" OR "security personnel" OR "hospital security" OR "hospital safeguarding" OR "guard" OR "keeper" OR "watchperson" OR "security officers" OR "hospital monitor" Or "security force".	Within Concept B, terms used will include: "hospital" OR "mental health" OR "psychiatric care" OR "inpatient psychiatric units" OR "emergency units" OR "psychiatry" OR "mental health" OR "mental institution" OR "psychiatric hospital" OR "psychiatric ward" OR "mental facility" OR "clinical settings" OR "health" OR "primary care" OR "behavioural unit" OR "clinical settings" OR "health care" OR "health" OR "health service" OR "medical aid" OR "medical assistance" OR "public health care" OR "health care service" OR "health-care" OR "health-related" OR "medical field" OR "clinics" OR "hospitals".

### 137 ***Time period***

138 Articles reviewed will include those published from 1990 to 2022.

### 139 ***Exclusion criteria***

140 This review will exclude grey literature, unpublished articles, opinion pieces, case reports, and publications  
 141 that do not have primary data and a clear description of the methods used. In cases where studies analysing



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3 142 the same data are published in more than one journal, we will include the most recent and complete  
4 143 publication. Any articles, research and data prior to 1990 will be excluded, as will studies in languages  
5 144 other than English. Studies that focus on medical personnel and not on security guards will also be excluded  
6 145 (see Table 2).

9  
10 146 ***Inclusion criteria***

11  
12 147 Studies published in English peer-reviewed journals and open sources accessed from the Stellenbosch  
13 148 University library website will be included. Additionally, this study will focus on all age groups and studies  
14 149 reported in English from 1990 to 2022. This will allow for a comprehensive scope in this niche area (see  
15 150 Table 2).

18  
19 151 **Table 2**

20  
21 152 **Inclusion and exclusion criteria**

	Included	Excluded
Publication type	English peer-reviewed journal articles.	
Study design	All study designs.	
Study population	All studies conducted on security guards of all ages in high-, middle- and low-income countries.	Grey literature, unpublished articles, cases and publications that do not have a clear description of methods used. Any data before 1990.
Exposure variables	N/A	
Outcome variables	All roles, uses and responsibilities reported by studies.	

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44 153 ***Selection of studies to be included in the review***

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46 154 To define the inclusion criteria, most studies utilise the PICO (Population, Intervention, Comparison,  
47 155 Outcome) model. This model is used for quantitative clinical research.<sup>22</sup> This study, therefore, adopts  
48 156 SPIDER (Sample, Phenomenon of Interest, Design, Evaluation, Research Type) which is a suitable  
49 157 framework for the inclusion of qualitative, quantitative, and mixed studies<sup>23</sup> (see Table 3).

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53 158 **Table 3**

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55 159 **Criteria for including studies in the review**

SPIDER (Sample, Phenomenon of Interest, Design, Evaluation, Research Type)	
Sample	All security guards working in mental health care, any age, and gender. The review is not restricted to geographical area, examining data from all over the world, thus including the perspectives of health care professionals internationally.
Phenomenon of Interest	The role of security guards in psychiatric care.
Design	Peer-reviewed published literature of any research design.
Evaluation	Characteristics, views, experiences.
Research Type	Qualitative, quantitative and mixed methods peer-reviewed studies.

160 The Preferred Reporting Items for Systematic Review and Meta-Analysis Protocols (PRISMA-P) flowchart  
 161 will be an additional retrieval strategy to document the search.<sup>24</sup> The first step will be screening the  
 162 literature. A title search will be conducted using the database and the study's keywords, these being  
 163 documented on the title extract and abstract search list. Only articles that fulfil the title inclusion criteria  
 164 will advance to the second level, which is the abstract search. The PRISMA flowchart will account for the  
 165 number of records identified or removed (see Figure 1 below).

166 [Place Figure 1 about here]

### 167 ***Data extraction and management***

168 We will extract data in word form. The reviewer will also revert to the PRISMA extraction flow chart in  
 169 order to extract studies initially successful in meeting the criteria. The first reviewer will review first,  
 170 followed by the second reviewer. The third reviewer will review if there are any disparities between the  
 171 two initial reviewers. These will be done independently on systematic review software, Rayyan, to avoid  
 172 error. Extracted data will include study details (author, year of publication, country of study).

### 173 ***Quality appraisal and assessment of bias***

174 Upon selecting articles which fulfil the title and abstract search criteria, articles included will be appraised.  
 175 The Critical Appraisal Skills Programme (CASP) tool<sup>21</sup> is commonly used,<sup>25</sup> and an adapted version of the  
 176 CASP tool, proposed by Laher and Hassem<sup>26</sup>, will be used in this study. This tool consists of six items for  
 177 theoretical articles, 11 items for quantitative articles and 10 questions for qualitative articles, which will be  
 178 used as an appraisal tool in terms of the research aims, methodology used, sample, data analysis,  
 179 presentation of findings, values of the research, as well as trustworthiness if it is a qualitative study and  
 180 reflexivity if it is a quantitative study.<sup>26</sup>

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3 181 The CASP tool itself proposes a cut-off for a study after a few questions/checklists, therefore any scoring  
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5 182 or grading is not recommended for studies being appraised.<sup>21</sup> The first few questions on the CASP checklist  
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7 183 are screening questions; if the answer to them is “yes”, then the study is worth proceeding to the remaining  
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9 184 questions. An article must fulfil the full checklist in order to advance to the extraction phase.

### 10 185 ***Data synthesis and analysis***

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12 186 A narrative analysis/synthesis will be conducted to extract text which will then be narrated.<sup>22</sup> Popay et al.<sup>27</sup>  
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14 187 outline four elements involved in reporting narratively, namely, 1) Developing a theory of how the  
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16 188 intervention works, why and for whom; 2) Developing a preliminary synthesis of findings of included  
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18 189 studies; 3) Exploring similarities/relationships in the data; and 4) Assessing the robustness of the synthesis.  
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20 190 For the purpose of this study, only elements 2–4 will be included as the aim is not to develop an intervention,  
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22 191 but rather to synthesize the roles of security guards in psychiatric institutions. The data will be presented in  
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24 192 the form of a qualitative narrative description, in table format. For transparent reporting, the analysis will  
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26 193 be guided by the PRISMA statement.

### 25 194 ***Patient and public involvement***

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27 195 As this is a systematic review protocol, no patients or public will be involved.

### 29 196 **Ethics and dissemination**

30  
31 197 This systematic review will use publicly available peer-reviewed data from the 10 identified search engines  
32  
33 198 (Biomed Central, SocIndex, ScienceDirect, Google Scholar, JSTOR, PsycARTICLES, PsycINFO, Scopus,  
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35 199 Web of Science and PubMed) and will therefore not require an ethical review, but rather, an ethics waiver.  
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37 200 The systematic review protocol will be submitted for ethics waiver clearance from the Stellenbosch  
38  
39 201 University Health Research Ethics Committee. The findings from this review will be disseminated through  
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41 202 peer-reviewed publications and conferences.

41 203 **Authors' contributions:** LS, LiSh and SHR conceptualised the study. LiSh was responsible for drafting  
42  
43 204 the protocol in close consultation with LS and SHR. QC, PS and TR provided significant edits to the  
44  
45 205 protocol. All authors revised and approved the manuscript.

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48  
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51 208 commercial or not-for-profit sectors.

52  
53 209 **Figure 1:** Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) diagram of  
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55 210 study selection process.

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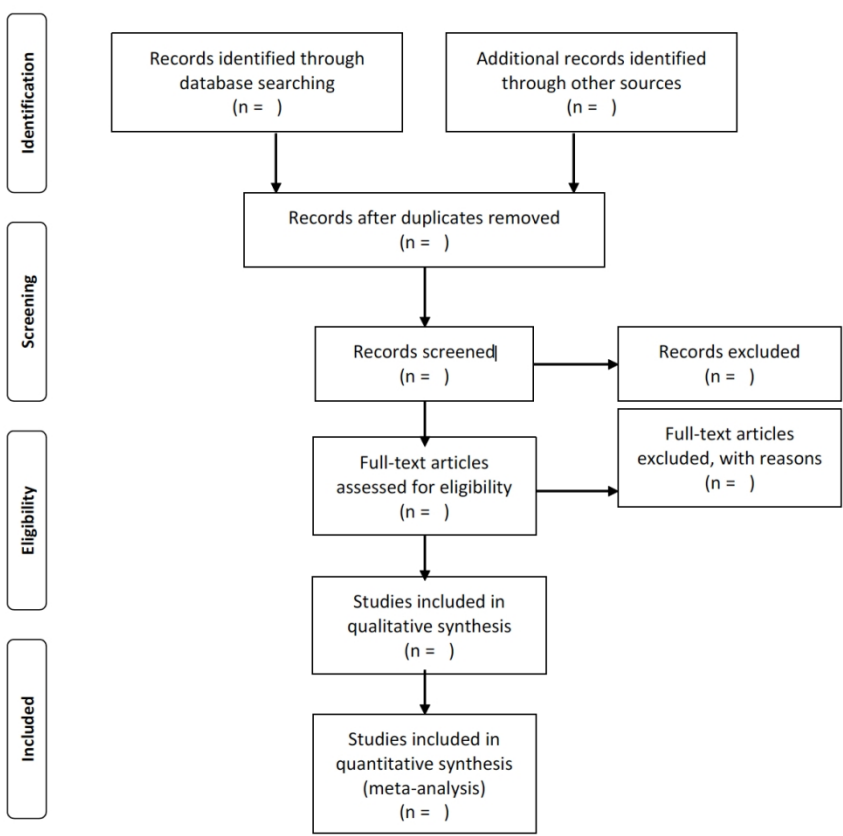


Figure 1: Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) diagram of study selection process.

245x222mm (144 x 144 DPI)

# BMJ Open

## The Role of Security Guards in Healthcare Settings: A Protocol for a Systematic Review

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<b>Primary Subject Heading</b>:	Global health
Secondary Subject Heading:	Health policy, Public health, Mental health
Keywords:	PUBLIC HEALTH, Quality in health care < HEALTH SERVICES ADMINISTRATION & MANAGEMENT, GENERAL MEDICINE (see Internal Medicine), PSYCHIATRY

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Manuscripts



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4 1 **The Role of Security Guards in Healthcare Settings: A Protocol for a Systematic Review**

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44 21 **Word count:** 2.218 (excluding title page, references, figures and tables)

45 22 **Keywords:** security guards, health care, roles, hospital  
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## 23 **The Role of Security Guards in Healthcare Settings: A Protocol for a Systematic Review**

### 24 **Abstract**

25 **Introduction:** There is a paucity of literature on the comprehensive roles of security guards in health care,  
26 regardless of day-to-day observations of security guards playing an extensive role in this field. Thus, this  
27 review will systematically explore the roles of security guards in health care contexts to create a centred  
28 body of evidence.

29 **Methods and analysis:** The study will systematically review existing quantitative and qualitative peer-  
30 reviewed literature on security guards in institutional health care so as to understand their roles. We will  
31 conduct the systematic review on 10 electronic databases: Biomed Central, SocIndex, ScienceDirect,  
32 Google Scholar, JSTOR, PsycARTICLES, PsycINFO, Scopus, Web of Science and Pubmed. Data  
33 extraction will be in the form of a word document. Mendeley software will be used to keep track of  
34 references, while the systematic review software, Rayyan, will be used for the screening, inclusion and  
35 exclusion of articles. If necessary, reviewer number three will conduct a third review should any disputes  
36 arise between the two initial reviewers. Quality assessment of the articles will be measured with the Critical  
37 Appraisal Skills Programme (CASP) tool for articles in terms of the research aims, methodology used,  
38 sample, data analysis, presentation of findings, values of the research, as well as trustworthiness if it is a  
39 qualitative study or reflexivity if it is a quantitative study. Studies dating back 32 years will be  
40 incorporated for a comprehensive review.

41 **Ethics and dissemination:** This systematic review will use publicly available peer-reviewed data from  
42 electronic databases and will therefore not require an ethical review, but rather, an ethics waiver. The  
43 systematic review protocol will be submitted for ethics waiver clearance from the Stellenbosch University  
44 Health Research Ethics Committee. The findings from this review will be disseminated through peer-  
45 reviewed publications and conferences.

46 **PROSPERO registration number:** CRD42022353653

### 47 **STRENGTHS AND LIMITATIONS OF THIS STUDY**

- 48 • This systematic review will provide a comprehensive overview of the roles security guards play  
49 in health care institutions.
- 50 • With the aim of providing a comprehensive overview, both quantitative and qualitative studies  
51 will be included.
- 52 • In addition to the multidisciplinary databases, the reference sections of the included studies will  
53 be searched to find relevant articles that were missed by the search engines or not listed in the  
54 selected databases.

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- The implementation and reporting of the systematic review will follow the Preferred Reporting Items for Systematic Review and Meta-Analysis (PRISMA) to ensure transparency and accuracy.
- Studies which are published in languages other than English will not be included, which can lead to a linguistically caused bias.

For peer review only

## 59 **Introduction**

### 60 ***Background***

61 Many health care facilities employ security guards as part of their security strategy.<sup>1</sup> Adeniyi and Puzi<sup>2</sup>  
62 attribute this to violent and aggressive behaviours that are not uncommon in many health care institutions,  
63 including hospitals and psychiatric and emergency units.<sup>3-6</sup> Such behaviours are amongst the key reasons  
64 for the employment of security guards.<sup>7</sup> Other reasons include the protection of valuable property held in  
65 health care facilities, public visitation control and perimeter patrols to protect the privacy and dignity of  
66 patients, and the provision of information in large facilities regarding where to find particular wards or units  
67 and the rules of visitation and entry. Security guards filter access control and protect the institution through  
68 the checking of visitor appointment cards and entry to the correct facility within institutions.<sup>8</sup>

69 An important function of security guards is safety intervention when patients threaten to harm themselves,  
70 staff, or other patients, or when there is a need for physical restraint or de-escalation.<sup>1,9</sup> Thus, a key role is  
71 to ensure patient and staff safety by managing violent and aggressive behaviour.<sup>10-12</sup>

72 Security guards are more likely than health care professionals to be injured at work, with many attacks  
73 occurring at night. Clearly, they are on the front line, commonly being deployed to reinforce the overall  
74 security programme of health facilities and being called in to situations of elevated risk.<sup>13</sup> In a study on  
75 security guards in Finland, 39% reported at least one incident of verbal aggression against them per month,  
76 19% reported at least one threat of physical aggression per month and 15% experienced at least one act of  
77 physical aggression per month.<sup>14</sup>

78 In addition to the official tasks that security guards are contracted for, they may also take on other roles,  
79 even if informally.<sup>15</sup> It is clear, therefore, that security guards take on numerous roles and perform several  
80 tasks, including, in some instances, tasks for which they are not adequately trained.<sup>16</sup> For instance, security  
81 guards may be asked to perform the role of informal interpreters when clinicians are not able to  
82 communicate with patients who speak languages which clinicians do not understand.<sup>17,18</sup> A study,  
83 conducted in South Africa at a psychiatric hospital, investigated the potential consequences for diagnostic  
84 assessments mediated by ad hoc interpreters who were employed as health care workers and household  
85 aides. The study found errors in the interpretations, which consequently affected the goals and outcomes of  
86 the clinical sessions, some potentially resulting in incorrect diagnoses of the severity of patient psychiatric  
87 illness. Within the context of the current research protocol, security guards may be assigned to carry out  
88 informal interpreting in the absence of training and support in interpreting skills, and, in addition, these  
89 security guards may be unfamiliar with technical medical and psychiatric terminology.<sup>17</sup>

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3 90 Sefalafala and Webster<sup>19</sup> note that security guards are often amongst the lower paid staff members at a  
4 91 health care facility. Given these pressures, some studies suggest that security guards may be prone to  
5 92 behavioural problems and mental health problems such as substance abuse, antisocial behaviour, physical  
6 93 aggression, and anger.<sup>20</sup> Notwithstanding, it appears that little attention has been given to the work of  
7 94 security guards in health care despite the fact that security guards are part of the broader health care  
8 95 workforce.<sup>20</sup>

12  
13 96 This review seeks to systematically examine and synthesise research on the role of security guards in health  
14 97 care. To our knowledge, this will be the first review on this topic. We aim to understand critical processes  
15 98 and outcomes related to the use of security guards in health care. It is possible that the review may lead to  
16 99 recommendations for adequate training and support for this cadre of workers, as well as guidelines and  
17 100 policy recommendations.

## 11 101 **Methods and analysis**

### 12 102 *Types of studies*

13 103 Qualitative, quantitative and mixed method studies on the roles of security guards will be incorporated in  
14 104 this review. Scientific studies published in English will be included. Any studies reporting on the roles of  
15 105 security guards and their experience of these roles will be included. There is no geographical restriction –  
16 106 we will search for studies from high-, middle- and low-income countries. All studies included must have  
17 107 been peer-reviewed.

### 18 108 *Type of participants*

19 109 Studies must report on the roles and experiences of security guards but there are no other restrictions, for  
20 110 example, studies on health care workers' perceptions of the roles and experiences of security guards will  
21 111 be included.

### 22 112 *Search methods for identification of studies*

23 113 We will conduct the systematic review on 10 electronic databases: Biomed Central, SocIndex,  
24 114 ScienceDirect, Google Scholar, JSTOR, PsycARTICLES, PsycINFO, Scopus, Web of Science and  
25 115 Pubmed. Data extraction will be in the form of a Word document. Mendeley referencing software will be  
26 116 used to manage searched articles, thereafter transferred to the systematic review software, Rayyan, where  
27 117 duplicates will be removed. We have developed a search strategy that will be adapted to different search  
28 118 engines (see Table 1). In addition to database search results, reference sections of the included journal  
29 119 articles will be reviewed to identify any relevant articles that were missed by search engines.

### 30 120 *Search strategy*

121 The keywords listed in Table 1 will guide the searches. These strings will be expanded based on the  
 122 information retrieved from selected articles.

123 **Table 1**

124 **Search strings for electronic databases**

<b>Concept A: Security guards</b>	<b>Concept B: Health care</b>
Within Concept A, terms used will include:	Within Concept B, terms used will include:
“security guards” OR “security officers” OR “patrol officers” OR “attendant” OR “manhandle” OR “patient watch” OR “supervision” OR “management” OR “hospital safety” OR “policing” OR “security personnel” OR “hospital security” OR “hospital safeguarding” OR “guard” OR “keeper” OR “watchperson” OR “security officers” OR “hospital monitor” Or “security force”.	“hospital” OR “mental health” OR “psychiatric care” OR “inpatient psychiatric units” OR “emergency units” OR “psychiatry” OR “mental health” OR “mental institution” OR “psychiatric hospital” OR “psychiatric ward” OR “mental facility” OR “clinical settings” OR “health” OR “primary care” OR “behavioural unit” OR “clinical settings” OR “health care” OR “health” OR “health service” OR “medical aid” OR “medical assistance” OR “public health care” OR “health care service” OR “health-care” OR “health-related” OR “medical field” OR “clinics” OR “hospitals”.

125 ***Time period***

126 Articles reviewed will include those published from 1990 to 2022 to provide a comprehensive examination  
 127 and synthesis of the existing research.

128 ***Exclusion criteria***

129 This review will exclude grey literature, unpublished articles, opinion pieces, case reports, and publications  
 130 that do not have primary data and a clear description of the methods used. In cases where studies analysing  
 131 the same data are published in more than one journal, we will include the most recent and complete  
 132 publication. Any articles, research and data prior to 1990 will be excluded, as will studies in languages  
 133 other than English. Studies that focus on medical personnel and not on security guards will also be excluded  
 134 (see Table 2).

135 ***Inclusion criteria***

136 Studies published in English peer-reviewed journals and open sources accessed from the Stellenbosch  
 137 University library website will be included. Additionally, this study will focus on all age groups and studies  
 138 reported in English from 1990 to 2022. This will allow for a comprehensive scope in this niche area (see  
 139 Table 2).

## 140 **Table 2**

### 141 **Overall approach to inclusion and exclusion criteria**

	Included	Excluded
Publication type	English peer-reviewed journal articles.	
Study design	All study designs.	
Study population	All studies conducted on security guards of all ages in high-, middle- and low-income countries.	Grey literature, unpublished articles, cases and publications that do not have a clear description of methods used. Any data before 1990.
Exposure variables	N/A	
Outcome variables	All roles, uses and responsibilities reported by studies.	

### 142 ***Selection of studies to be included in the review***

143 To define the inclusion criteria, most studies utilise the PICO (Population, Intervention, Comparison,  
 144 Outcome) model. This model is used for quantitative clinical research.<sup>21</sup> This study, therefore, adopts  
 145 SPIDER (Sample, Phenomenon of Interest, Design, Evaluation, Research Type) which is a suitable  
 146 framework for the inclusion of qualitative, quantitative, and mixed studies<sup>22</sup> (see Table 3). Screening,  
 147 inclusion and exclusion of articles will be carried out using Rayyan. The screening process involves title  
 148 and abstract screening by two independent reviewers, followed by full text screening by two independent  
 149 reviewers. Where there are disagreements across the two reviewers, a third reviewer will carry out an  
 150 independent review to resolve differences.

## 151 **Table 3**

### 152 **SPIDER approach for selecting studies**

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SPIDER (Sample, Phenomenon of Interest, Design, Evaluation, Research Type)

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Sample	Security guards working in health care and other health care providers, any age, and gender. The review is not restricted to geographical area, examining data from all over the world, thus including the perspectives of health care professionals internationally.
Phenomenon of Interest	The role of security guards in healthcare.
Design	Peer-reviewed published literature of any research design.
Evaluation	Characteristics, views, experiences.
Research Type	Qualitative, quantitative and mixed methods peer-reviewed studies.

153 The Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) flowchart will be an  
 154 additional retrieval strategy to document the search.<sup>23</sup> The first step will be screening the literature. A title  
 155 search will be conducted using the database and the study's keywords, these being documented on the title  
 156 extract and abstract search list. Only articles that fulfil the title inclusion criteria will advance to the second  
 157 level, which is the abstract search. The PRISMA flowchart will account for the number of records identified  
 158 or removed (see Figure 1 below).

159 [Place Figure 1 about here]

### 160 ***Quality appraisal and assessment of bias***

161 Upon selecting articles which fulfil the title and abstract search criteria, articles included will be appraised.  
 162 The Critical Appraisal Skills Programme (CASP) tool<sup>24</sup> is commonly used,<sup>25</sup> and an adapted version of the  
 163 CASP tool, proposed by Laher and Hassem<sup>26</sup>, will be used in this study. This tool consists of six items for  
 164 theoretical articles, 11 items for quantitative articles and 10 questions for qualitative articles, which will be  
 165 used as an appraisal tool in terms of the research aims, methodology used, sample, data analysis,  
 166 presentation of findings, values of the research, as well as trustworthiness if it is a qualitative study and  
 167 reflexivity if it is a quantitative study.<sup>26</sup>

168 The CASP tool itself proposes a cut-off for a study after a few questions/checklists, therefore any scoring  
 169 or grading is not recommended for studies being appraised.<sup>24</sup> The first few questions on the CASP checklist  
 170 are screening questions; if the answer to them is "yes", then the study is worth proceeding to the remaining  
 171 questions. An article must fulfil the full checklist in order to advance to the extraction phase.

### 172 ***Data extraction and management***



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3 173 To extract data, reviewer number 1 will conduct data extraction in Word. Extracted data will be tabularised  
4 174 to include study details (author, year of publication, country of study). Additionally, studies sought through  
5 175 chain referencing will be extracted.  
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### 8 176 ***Data synthesis and analysis***

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10 177 A narrative analysis/synthesis will be conducted to extract text which will then be narrated.<sup>21</sup> Popay et al.<sup>27</sup>  
11 178 outline four elements involved in reporting narratively, namely, 1) Developing a theory of how the  
12 179 intervention works, why and for whom; 2) Developing a preliminary synthesis of findings of included  
13 180 studies; 3) Exploring similarities/relationships in the data; and 4) Assessing the robustness of the synthesis.  
14 181 For the purpose of this study, only elements 2–4 will be included as the aim is not to develop an intervention,  
15 182 but rather to synthesize the roles of security guards in healthcare. The data will be presented in the form of  
16 183 a qualitative narrative description, in table format. For transparent reporting, the analysis will be guided by  
17 184 the PRISMA statement.

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20 185 The planned start of the review will be as soon as the protocol has been accepted (probably in March 2023)  
21 186 and is expected to be completed in April 2024.

### 22 187 ***Patient and public involvement***

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24 188 As this is a systematic review protocol, no patients or public will be involved.

### 25 189 **Ethics and dissemination**

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27 190 This systematic review will use publicly available peer-reviewed data from the 10 identified search engines  
28 191 (Biomed Central, SocIndex, ScienceDirect, Google Scholar, JSTOR, PsycARTICLES, PsycINFO, Scopus,  
29 192 Web of Science and PubMed) and will therefore not require an ethical review, but rather, an ethics waiver.  
30 193 The systematic review protocol will be submitted for ethics waiver clearance from the Stellenbosch  
31 194 University Health Research Ethics Committee. The findings from this review will be disseminated through  
32 195 peer-reviewed publications and conferences.

33  
34 196 **Authors' contributions:** LS, LiSh and SHR conceptualised the study. LiSh was responsible for drafting  
35 197 the protocol in close consultation with LS and SHR. QC, PS and TR provided significant edits to the  
36 198 protocol. All authors revised and approved the manuscript.

37  
38 199 **Competing interests statement:** None declared.

39  
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41 201 commercial or not-for-profit sectors.

42  
43 202 **Figure 1:** Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) diagram of  
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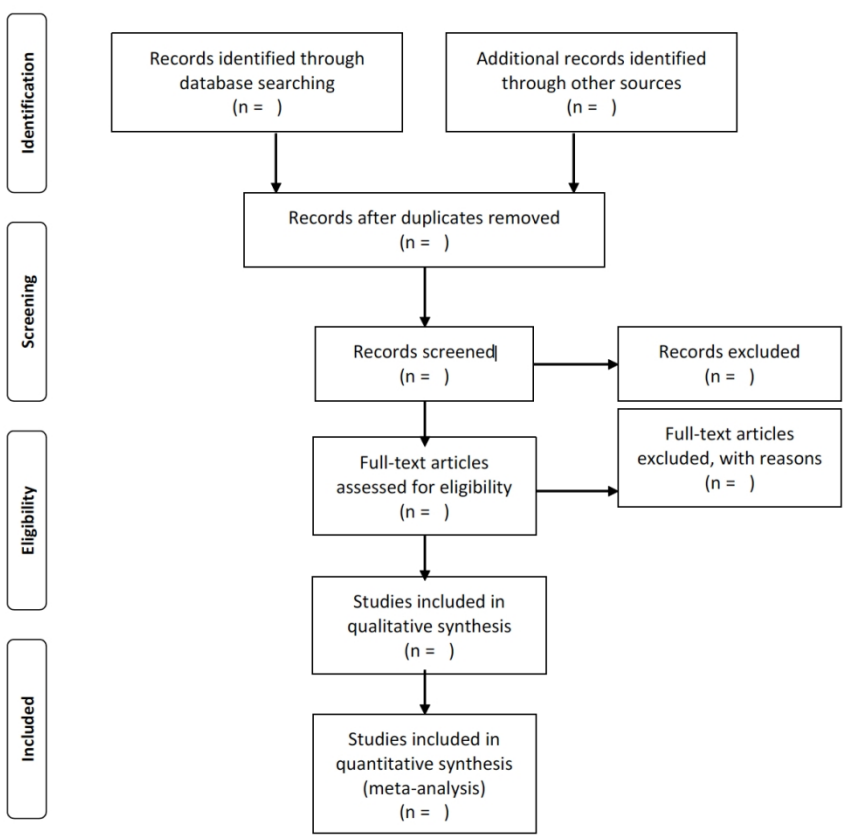


Figure 1: Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) diagram of study selection process.

245x222mm (144 x 144 DPI)

**PRISMA-P (Preferred Reporting Items for Systematic review and Meta-Analysis Protocols) 2015 checklist: recommended items to address in a systematic review protocol\***

Section and topic	Item No	Checklist item	Page/line
<b>ADMINISTRATIVE INFORMATION</b>			
Title:			
Identification	1a	Identify the report as a protocol of a systematic review	p.1/line 1
Update	1b	If the protocol is for an update of a previous systematic review, identify as such	N/A
Registration	2	If registered, provide the name of the registry (such as PROSPERO) and registration number	p.2/line 46
Authors:			
Contact	3a	Provide name, institutional affiliation, e-mail address of all protocol authors; provide physical mailing address of corresponding author	p.1/line 1-19
Contributions	3b	Describe contributions of protocol authors and identify the guarantor of the review	
Amendments	4	If the protocol represents an amendment of a previously completed or published protocol, identify as such and list changes; otherwise, state plan for documenting important protocol amendments	p.9/line 196-198
Support:			
Sources	5a	Indicate sources of financial or other support for the review	p.9/line 200-201
Sponsor	5b	Provide name for the review funder and/or sponsor	N/A
Role of sponsor or funder	5c	Describe roles of funder(s), sponsor(s), and/or institution(s), if any, in developing the protocol	N/A
<b>INTRODUCTION</b>			
Rationale	6	Describe the rationale for the review in the context of what is already known	p.4/5/ line 59-100
Objectives	7	Provide an explicit statement of the question(s) the review will address with reference to participants, interventions, comparators, and outcomes (PICO)	p.5/line 96-100 p. 7/line 143-150
<b>METHODS</b>			
Eligibility criteria	8	Specify the study characteristics (such as PICO, study design, setting, time frame) and report characteristics (such as years considered, language, publication status) to be used as criteria for eligibility for the review	p. 6/8/ line 125-158
Information sources	9	Describe all intended information sources (such as electronic databases, contact with study authors, trial registers or other grey literature sources) with planned dates of coverage	p. 5/6/ line 112-127
Search strategy	10	Present draft of search strategy to be used for at least one electronic database, including planned limits, such that it could be repeated	p. 6/ /table 1

Study records:			
Data management	11a	Describe the mechanism(s) that will be used to manage records and data throughout the review	p. 8/9/ line 172-175
Selection process	11b	State the process that will be used for selecting studies (such as two independent reviewers) through each phase of the review (that is, screening, eligibility and inclusion in meta-analysis)	p. 7/ line 142-150
Data collection process	11c	Describe planned method of extracting data from reports (such as piloting forms, done independently, in duplicate), any processes for obtaining and confirming data from investigators	p. 8/9 / line 172-175
Data items	12	List and define all variables for which data will be sought (such as PICO items, funding sources), any pre-planned data assumptions and simplifications	p. 7/8 / line 142-150, table 3
Outcomes and prioritization	13	List and define all outcomes for which data will be sought, including prioritization of main and additional outcomes, with rationale	p.7 / table 2
Risk of bias in individual studies	14	Describe anticipated methods for assessing risk of bias of individual studies, including whether this will be done at the outcome or study level, or both; state how this information will be used in data synthesis	p. 8/ line 160-171
Data synthesis	15a	Describe criteria under which study data will be quantitatively synthesised	p. 9 / line 176-184
	15b	If data are appropriate for quantitative synthesis, describe planned summary measures, methods of handling data and methods of combining data from studies, including any planned exploration of consistency (such as $I^2$ , Kendall's $\tau$ )	N/A
	15c	Describe any proposed additional analyses (such as sensitivity or subgroup analyses, meta-regression)	N/A
	15d	If quantitative synthesis is not appropriate, describe the type of summary planned	p. 9 / line 176-184
Meta-bias(es)	16	Specify any planned assessment of meta-bias(es) (such as publication bias across studies, selective reporting within studies)	N/A
Confidence in cumulative evidence	17	Describe how the strength of the body of evidence will be assessed (such as GRADE)	p.8 line 168

**\* It is strongly recommended that this checklist be read in conjunction with the PRISMA-P Explanation and Elaboration (cite when available) for important clarification on the items. Amendments to a review protocol should be tracked and dated. The copyright for PRISMA-P (including checklist) is held by the PRISMA-P Group and is distributed under a Creative Commons Attribution Licence 4.0.**

*From: Shamseer L, Moher D, Clarke M, Ghersi D, Liberati A, Petticrew M, Shekelle P, Stewart L, PRISMA-P Group. Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015: elaboration and explanation. BMJ. 2015 Jan 2;349(jan02 1):g7647.*

# BMJ Open

## The Role of Security Guards in Healthcare Settings: A Protocol for a Systematic Review

Journal:	<i>BMJ Open</i>
Manuscript ID	bmjopen-2022-069546.R2
Article Type:	Protocol
Date Submitted by the Author:	02-Feb-2023
Complete List of Authors:	Shongwe, Lindokuhle; Stellenbosch University, Department of Psychology Hanft-Robert, Saskia; University Medical Center Hamburg-Eppendorf, Department for Medical Psychology Cossie, Qhama; Valkenberg Hospital, Department of Health & Wellness; University of Cape Town, Department of Psychiatry and Mental Health Sithole, Philasande; Valkenberg Hospital, Department of Health & Wellness Roos, Tessa; Valkenberg Hospital, Department of Health & Wellness; University of Cape Town, Department of Psychiatry and Mental Health Swartz, L; Stellenbosch University, Department of Psychology
<b>Primary Subject Heading</b>:	Global health
Secondary Subject Heading:	Health policy, Public health, Mental health
Keywords:	PUBLIC HEALTH, Quality in health care < HEALTH SERVICES ADMINISTRATION & MANAGEMENT, GENERAL MEDICINE (see Internal Medicine), PSYCHIATRY

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Manuscripts



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4 1 **The Role of Security Guards in Healthcare Settings: A Protocol for a Systematic Review**

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6 2 Lindokuhle Shongwe<sup>1</sup>, Saskia Hanft-Robert<sup>2</sup>, Qhama Cossie<sup>3,4</sup>, Philasande Sithole<sup>3</sup>, Tessa Roos<sup>3,4</sup>, Leslie  
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44 21 **Word count:** 2.218 (excluding title page, references, figures and tables)

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46 22 **Keywords:** security guards, health care, roles, hospital  
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## 23 **The Role of Security Guards in Healthcare Settings: A Protocol for a Systematic Review**

### 24 **Abstract**

25 **Introduction:** There is a paucity of literature on the comprehensive roles of security guards in health care,  
26 regardless of day-to-day observations of security guards playing an extensive role in this field. Thus, this  
27 review will systematically explore the roles of security guards in health care contexts to create a centred  
28 body of evidence.

29 **Methods and analysis:** The study will systematically review existing quantitative and qualitative peer-  
30 reviewed literature on security guards in institutional health care so as to understand their roles. We will  
31 conduct the systematic review on 10 electronic databases: Biomed Central, SocIndex, ScienceDirect,  
32 Google Scholar, JSTOR, PsycARTICLES, PsycINFO, Scopus, Web of Science and Pubmed. Data  
33 extraction will be in the form of a word document. Mendeley software will be used to keep track of  
34 references, while the systematic review software, Rayyan, will be used for the screening, inclusion and  
35 exclusion of articles. If necessary, reviewer number three will conduct a third review should any disputes  
36 arise between the two initial reviewers. Quality assessment of the articles will be measured with the Critical  
37 Appraisal Skills Programme (CASP) tool for articles in terms of the research aims, methodology used,  
38 sample, data analysis, presentation of findings, values of the research, as well as trustworthiness if it is a  
39 qualitative study or reflexivity if it is a quantitative study. Studies dating back 32 years will be  
40 incorporated for a comprehensive review.

41 **Ethics and dissemination:** This systematic review will use publicly available peer-reviewed data from  
42 electronic databases and will therefore not require an ethical review, but rather, an ethics waiver. The  
43 systematic review protocol will be submitted for ethics waiver clearance from the Stellenbosch University  
44 Health Research Ethics Committee. The findings from this review will be disseminated through peer-  
45 reviewed publications and conferences.

46 **PROSPERO registration number:** CRD42022353653

### 47 **STRENGTHS AND LIMITATIONS OF THIS STUDY**

- 48 • With the aim of providing a comprehensive overview, both quantitative and qualitative studies  
49 will be included.
- 50 • In addition to the multidisciplinary databases, the reference sections of the included studies will  
51 be searched to find relevant articles that were missed by the search engines or not listed in the  
52 selected databases.
- 53 • The implementation and reporting of the systematic review will follow the Preferred Reporting  
54 Items for Systematic Review and Meta-Analysis (PRISMA) to ensure transparency and accuracy.

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- 55 • Studies which are published in languages other than English will not be included, which can lead  
56 to a linguistically caused bias.

For peer review only

## 57 **Introduction**

### 58 ***Background***

59 Many health care facilities employ security guards as part of their security strategy.<sup>1</sup> Adeniyi and Puzi<sup>2</sup>  
60 attribute this to violent and aggressive behaviours that are not uncommon in many health care institutions,  
61 including hospitals and psychiatric and emergency units.<sup>3-6</sup> Such behaviours are amongst the key reasons  
62 for the employment of security guards.<sup>7</sup> Other reasons include the protection of valuable property held in  
63 health care facilities, public visitation control and perimeter patrols to protect the privacy and dignity of  
64 patients, and the provision of information in large facilities regarding where to find particular wards or units  
65 and the rules of visitation and entry. Security guards filter access control and protect the institution through  
66 the checking of visitor appointment cards and entry to the correct facility within institutions.<sup>8</sup>

67 An important function of security guards is safety intervention when patients threaten to harm themselves,  
68 staff, or other patients, or when there is a need for physical restraint or de-escalation.<sup>1,9</sup> Thus, a key role is  
69 to ensure patient and staff safety by managing violent and aggressive behaviour.<sup>10-12</sup>

70 Security guards are more likely than health care professionals to be injured at work, with many attacks  
71 occurring at night. Clearly, they are on the front line, commonly being deployed to reinforce the overall  
72 security programme of health facilities and being called in to situations of elevated risk.<sup>13</sup> In a study on  
73 security guards in Finland, 39% reported at least one incident of verbal aggression against them per month,  
74 19% reported at least one threat of physical aggression per month and 15% experienced at least one act of  
75 physical aggression per month.<sup>14</sup>

76 In addition to the official tasks that security guards are contracted for, they may also take on other roles,  
77 even if informally.<sup>15</sup> It is clear, therefore, that security guards take on numerous roles and perform several  
78 tasks, including, in some instances, tasks for which they are not adequately trained.<sup>16</sup> For instance, security  
79 guards may be asked to perform the role of informal interpreters when clinicians are not able to  
80 communicate with patients who speak languages which clinicians do not understand.<sup>17,18</sup> A study,  
81 conducted in South Africa at a psychiatric hospital, investigated the potential consequences for diagnostic  
82 assessments mediated by ad hoc interpreters who were employed as health care workers and household  
83 aides. The study found errors in the interpretations, which consequently affected the goals and outcomes of  
84 the clinical sessions, some potentially resulting in incorrect diagnoses of the severity of patient psychiatric  
85 illness. Within the context of the current research protocol, security guards may be assigned to carry out  
86 informal interpreting in the absence of training and support in interpreting skills, and, in addition, these  
87 security guards may be unfamiliar with technical medical and psychiatric terminology.<sup>17</sup>

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3 88 Sefalafala and Webster<sup>19</sup> note that security guards are often amongst the lower paid staff members at a  
4 89 health care facility. Given these pressures, some studies suggest that security guards may be prone to  
5 90 behavioural problems and mental health problems such as substance abuse, antisocial behaviour, physical  
6 91 aggression, and anger.<sup>20</sup> Notwithstanding, it appears that little attention has been given to the work of  
7 92 security guards in health care despite the fact that security guards are part of the broader health care  
8 93 workforce.<sup>20</sup>

94 This review seeks to systematically examine and synthesise research on the role of security guards in health  
95 care. To our knowledge, this will be the first review on this topic. We aim to understand critical processes  
96 and outcomes related to the use of security guards in health care. It is possible that the review may lead to  
97 recommendations for adequate training and support for this cadre of workers, as well as guidelines and  
98 policy recommendations.

## 99 **Methods and analysis**

### 100 *Types of studies*

101 Qualitative, quantitative and mixed method studies on the roles of security guards will be incorporated in  
102 this review. Scientific studies published in English will be included. Any studies reporting on the roles of  
103 security guards and their experience of these roles will be included. There is no geographical restriction –  
104 we will search for studies from high-, middle- and low-income countries. All studies included must have  
105 been peer-reviewed.

### 106 *Type of participants*

107 Studies must report on the roles and experiences of security guards but there are no other restrictions, for  
108 example, studies on health care workers' perceptions of the roles and experiences of security guards will  
109 be included.

### 110 *Search methods for identification of studies*

111 We will conduct the systematic review on 10 electronic databases: Biomed Central, SocIndex,  
112 ScienceDirect, Google Scholar, JSTOR, PsycARTICLES, PsycINFO, Scopus, Web of Science and  
113 Pubmed. Data extraction will be in the form of a Word document. Mendeley referencing software will be  
114 used to manage searched articles, thereafter transferred to the systematic review software, Rayyan, where  
115 duplicates will be removed. We have developed a search strategy that will be adapted to different search  
116 engines (see Table 1). In addition to database search results, reference sections of the included journal  
117 articles will be reviewed to identify any relevant articles that were missed by search engines.

### 118 *Search strategy*

119 The keywords listed in Table 1 will guide the searches. These strings will be expanded based on the  
 120 information retrieved from selected articles.

121 **Table 1**

122 **Search strings for electronic databases**

<b>Concept A: Security guards</b>	<b>Concept B: Health care</b>
Within Concept A, terms used will include:	Within Concept B, terms used will include:
“security guards” OR “security officers” OR “patrol officers” OR “attendant” OR “manhandle” OR “patient watch” OR “supervision” OR “management” OR “hospital safety” OR “policing” OR “security personnel” OR “hospital security” OR “hospital safeguarding” OR “guard” OR “keeper” OR “watchperson” OR “security officers” OR “hospital monitor” Or “security force”.	“hospital” OR “mental health” OR “psychiatric care” OR “inpatient psychiatric units” OR “emergency units” OR “psychiatry” OR “mental health” OR “mental institution” OR “psychiatric hospital” OR “psychiatric ward” OR “mental facility” OR “clinical settings” OR “health” OR “primary care” OR “behavioural unit” OR “clinical settings” OR “health care” OR “health” OR “health service” OR “medical aid” OR “medical assistance” OR “public health care” OR “health care service” OR “health-care” OR “health-related” OR “medical field” OR “clinics” OR “hospitals”.

123 ***Time period***

124 Articles reviewed will include those published from 1990 to 2022 to provide a comprehensive examination  
 125 and synthesis of the existing research.

126 ***Exclusion criteria***

127 This review will exclude grey literature, unpublished articles, opinion pieces, case reports, and publications  
 128 that do not have primary data and a clear description of the methods used. In cases where studies analysing  
 129 the same data are published in more than one journal, we will include the most recent and complete  
 130 publication. Any articles, research and data prior to 1990 will be excluded, as will studies in languages  
 131 other than English. Studies that focus on medical personnel and not on security guards will also be excluded  
 132 (see Table 2).

133 ***Inclusion criteria***

134 Studies published in English peer-reviewed journals and open sources accessed from the Stellenbosch  
 135 University library website will be included. Additionally, this study will focus on all age groups and studies  
 136 reported in English from 1990 to 2022. This will allow for a comprehensive scope in this niche area (see  
 137 Table 2).

## 138 **Table 2**

### 139 **Overall approach to inclusion and exclusion criteria**

	Included	Excluded
Publication type	English peer-reviewed journal articles.	
Study design	All study designs.	
Study population	All studies conducted on security guards of all ages in high-, middle- and low-income countries.	Grey literature, unpublished articles, cases and publications that do not have a clear description of methods used. Any data before 1990.
Exposure variables	N/A	
Outcome variables	All roles, uses and responsibilities reported by studies.	

### 140 ***Selection of studies to be included in the review***

141 To define the inclusion criteria, most studies utilise the PICO (Population, Intervention, Comparison,  
 142 Outcome) model. This model is used for quantitative clinical research.<sup>21</sup> This study, therefore, adopts  
 143 SPIDER (Sample, Phenomenon of Interest, Design, Evaluation, Research Type) which is a suitable  
 144 framework for the inclusion of qualitative, quantitative, and mixed studies<sup>22</sup> (see Table 3). Screening,  
 145 inclusion and exclusion of articles will be carried out using Rayyan. The screening process involves title  
 146 and abstract screening by two independent reviewers, followed by full text screening by two independent  
 147 reviewers. Where there are disagreements across the two reviewers, a third reviewer will carry out an  
 148 independent review to resolve differences.

## 149 **Table 3**

### 150 **SPIDER approach for selecting studies**

SPIDER (Sample, Phenomenon of Interest, Design, Evaluation, Research Type)
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Sample	Security guards working in health care and other health care providers, any age, and gender. The review is not restricted to geographical area, examining data from all over the world, thus including the perspectives of health care professionals internationally.
Phenomenon of Interest	The role of security guards in healthcare.
Design	Peer-reviewed published literature of any research design.
Evaluation	Characteristics, views, experiences.
Research Type	Qualitative, quantitative and mixed methods peer-reviewed studies.

151 The Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) flowchart will be an  
 152 additional retrieval strategy to document the search.<sup>23</sup> The first step will be screening the literature. A title  
 153 search will be conducted using the database and the study's keywords, these being documented on the title  
 154 extract and abstract search list. Only articles that fulfil the title inclusion criteria will advance to the second  
 155 level, which is the abstract search. The PRISMA flowchart will account for the number of records identified  
 156 or removed (see Figure 1 below).

157 [Place Figure 1 about here]

### 158 ***Quality appraisal and assessment of bias***

159 Upon selecting articles which fulfil the title and abstract search criteria, articles included will be appraised.  
 160 The Critical Appraisal Skills Programme (CASP) tool<sup>24</sup> is commonly used,<sup>25</sup> and an adapted version of the  
 161 CASP tool, proposed by Laher and Hassem<sup>26</sup>, will be used in this study. This tool consists of six items for  
 162 theoretical articles, 11 items for quantitative articles and 10 questions for qualitative articles, which will be  
 163 used as an appraisal tool in terms of the research aims, methodology used, sample, data analysis,  
 164 presentation of findings, values of the research, as well as trustworthiness if it is a qualitative study and  
 165 reflexivity if it is a quantitative study.<sup>26</sup>

166 The CASP tool itself proposes a cut-off for a study after a few questions/checklists, therefore any scoring  
 167 or grading is not recommended for studies being appraised.<sup>24</sup> The first few questions on the CASP checklist  
 168 are screening questions; if the answer to them is "yes", then the study is worth proceeding to the remaining  
 169 questions. An article must fulfil the full checklist in order to advance to the extraction phase.

### 170 ***Data extraction and management***

171 To extract data, reviewer number 1 will conduct data extraction in Word. Extracted data will be tabularised  
 172 to include study details (author, year of publication, country of study). In addition to author, year of



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3 173 publication, country of study, information on the roles and responsibilities of security guards in healthcare  
4 174 settings, including the scope of their work, how their roles as perceived by fellow healthcare workers and  
5 175 their impact on their workplace and patients will be extracted.

### 8 176 ***Data synthesis and analysis***

10 177 A narrative analysis/synthesis will be conducted to extract text which will then be narrated.<sup>21</sup> Popay et al.<sup>27</sup>  
11 178 outline four elements involved in reporting narratively, namely, 1) Developing a theory of how the  
12 179 intervention works, why and for whom; 2) Developing a preliminary synthesis of findings of included  
13 180 studies; 3) Exploring similarities/relationships in the data; and 4) Assessing the robustness of the synthesis.  
14 181 For the purpose of this study, only elements 2–4 will be included as the aim is not to develop an intervention,  
15 182 but rather to synthesize the roles of security guards in healthcare. The data will be presented in the form of  
16 183 a qualitative narrative description, in table format. For transparent reporting, the analysis will be guided by  
17 184 the PRISMA statement.

18 185 The planned start of the review will be as soon as the protocol has been accepted (probably in March 2023)  
19 186 and is expected to be completed in April 2024.

### 21 187 ***Patient and public involvement***

22 188 As this is a systematic review protocol, no patients or public will be involved.

### 24 189 **Ethics and dissemination**

25 190 This systematic review will use publicly available peer-reviewed data from the 10 identified search engines  
26 191 (Biomed Central, SocIndex, ScienceDirect, Google Scholar, JSTOR, PsycARTICLES, PsycINFO, Scopus,  
27 192 Web of Science and PubMed) and will therefore not require an ethical review, but rather, an ethics waiver.  
28 193 The systematic review protocol will be submitted for ethics waiver clearance from the Stellenbosch  
29 194 University Health Research Ethics Committee. The findings from this review will be disseminated through  
30 195 peer-reviewed publications and conferences.

31 196 **Authors' contributions:** LS, LiSh and SHR conceptualised the study. LiSh was responsible for drafting  
32 197 the protocol in close consultation with LS and SHR. QC, PS and TR provided significant edits to the  
33 198 protocol. All authors revised and approved the manuscript.

34 199 **Competing interests statement:** None declared.

35 200 **Funding statement:** This research received no specific grant from any funding agency in the public,  
36 201 commercial or not-for-profit sectors.

37 202 **Figure 1:** Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) diagram of  
38 203 study selection process.

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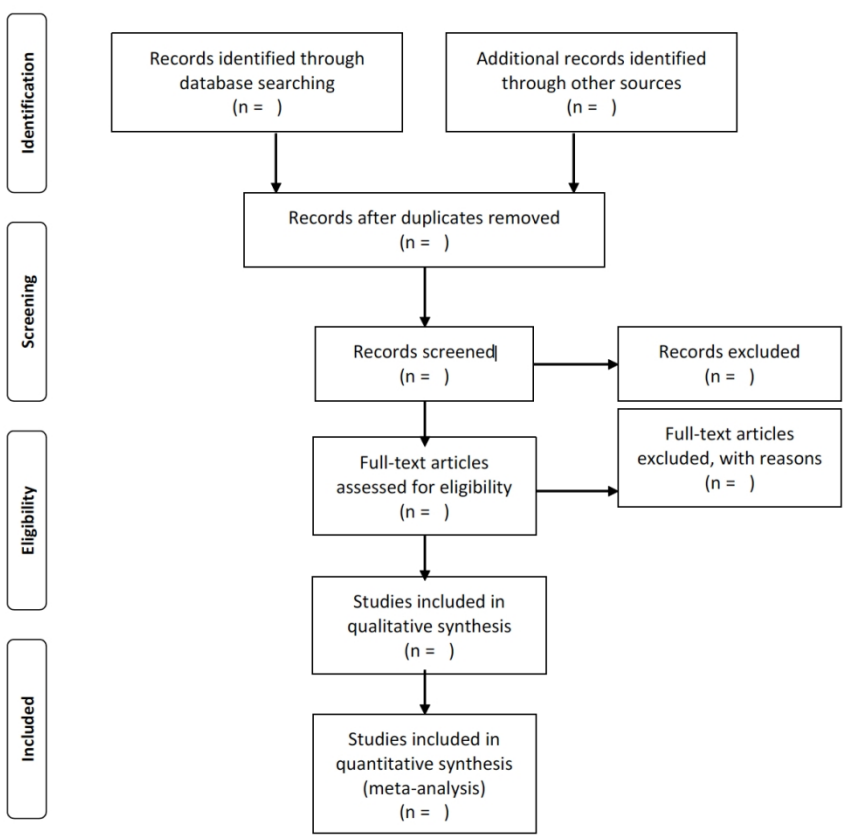


Figure 1: Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) diagram of study selection process.

245x222mm (144 x 144 DPI)

**PRISMA-P (Preferred Reporting Items for Systematic review and Meta-Analysis Protocols) 2015 checklist: recommended items to address in a systematic review protocol\***

Section and topic	Item No	Checklist item	Page/line
<b>ADMINISTRATIVE INFORMATION</b>			
Title:			
Identification	1a	Identify the report as a protocol of a systematic review	p.1/line 1
Update	1b	If the protocol is for an update of a previous systematic review, identify as such	N/A
Registration	2	If registered, provide the name of the registry (such as PROSPERO) and registration number	p.2/line 46
Authors:			
Contact	3a	Provide name, institutional affiliation, e-mail address of all protocol authors; provide physical mailing address of corresponding author	p.1/line 1-19
Contributions	3b	Describe contributions of protocol authors and identify the guarantor of the review	
Amendments	4	If the protocol represents an amendment of a previously completed or published protocol, identify as such and list changes; otherwise, state plan for documenting important protocol amendments	p.9/line 196-198
Support:			
Sources	5a	Indicate sources of financial or other support for the review	p.9/line 200-201
Sponsor	5b	Provide name for the review funder and/or sponsor	N/A
Role of sponsor or funder	5c	Describe roles of funder(s), sponsor(s), and/or institution(s), if any, in developing the protocol	N/A
<b>INTRODUCTION</b>			
Rationale	6	Describe the rationale for the review in the context of what is already known	p.4/5/ line 59-100
Objectives	7	Provide an explicit statement of the question(s) the review will address with reference to participants, interventions, comparators, and outcomes (PICO)	p.5/line 96-100 p. 7/line 143-150
<b>METHODS</b>			
Eligibility criteria	8	Specify the study characteristics (such as PICO, study design, setting, time frame) and report characteristics (such as years considered, language, publication status) to be used as criteria for eligibility for the review	p. 6/8/ line 125-158
Information sources	9	Describe all intended information sources (such as electronic databases, contact with study authors, trial registers or other grey literature sources) with planned dates of coverage	p. 5/6/ line 112-127
Search strategy	10	Present draft of search strategy to be used for at least one electronic database, including planned limits, such that it could be repeated	p. 6/ /table 1

Study records:			
Data management	11a	Describe the mechanism(s) that will be used to manage records and data throughout the review	p. 8/9/ line 172-175
Selection process	11b	State the process that will be used for selecting studies (such as two independent reviewers) through each phase of the review (that is, screening, eligibility and inclusion in meta-analysis)	p. 7/ line 142-150
Data collection process	11c	Describe planned method of extracting data from reports (such as piloting forms, done independently, in duplicate), any processes for obtaining and confirming data from investigators	p. 8/9 / line 172-175
Data items	12	List and define all variables for which data will be sought (such as PICO items, funding sources), any pre-planned data assumptions and simplifications	p. 7/8 / line 142-150, table 3
Outcomes and prioritization	13	List and define all outcomes for which data will be sought, including prioritization of main and additional outcomes, with rationale	p.7 / table 2
Risk of bias in individual studies	14	Describe anticipated methods for assessing risk of bias of individual studies, including whether this will be done at the outcome or study level, or both; state how this information will be used in data synthesis	p. 8/ line 160-171
Data synthesis	15a	Describe criteria under which study data will be quantitatively synthesised	p. 9 / line 176-184
	15b	If data are appropriate for quantitative synthesis, describe planned summary measures, methods of handling data and methods of combining data from studies, including any planned exploration of consistency (such as I <sup>2</sup> , Kendall's $\tau$ )	N/A
	15c	Describe any proposed additional analyses (such as sensitivity or subgroup analyses, meta-regression)	N/A
	15d	If quantitative synthesis is not appropriate, describe the type of summary planned	p. 9 / line 176-184
Meta-bias(es)	16	Specify any planned assessment of meta-bias(es) (such as publication bias across studies, selective reporting within studies)	N/A
Confidence in cumulative evidence	17	Describe how the strength of the body of evidence will be assessed (such as GRADE)	p.8 line 168

**\* It is strongly recommended that this checklist be read in conjunction with the PRISMA-P Explanation and Elaboration (cite when available) for important clarification on the items. Amendments to a review protocol should be tracked and dated. The copyright for PRISMA-P (including checklist) is held by the PRISMA-P Group and is distributed under a Creative Commons Attribution Licence 4.0.**

*From: Shamseer L, Moher D, Clarke M, Ghersi D, Liberati A, Petticrew M, Shekelle P, Stewart L, PRISMA-P Group. Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015: elaboration and explanation. BMJ. 2015 Jan 2;349(jan02 1):g7647.*

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4 1 **The Role of Security Guards in Healthcare Settings: A Protocol for a Systematic Review**

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45 21 **Word count:** 2.218 (excluding title page, references, figures and tables)

46 22 **Keywords:** security guards, health care, roles, hospital  
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## 23 **The Role of Security Guards in Healthcare Settings: A Protocol for a Systematic Review**

### 24 **Abstract**

25 **Introduction:** There is a paucity of literature on the comprehensive roles of security guards in health care,  
26 regardless of day-to-day observations of security guards playing an extensive role in this field. Thus, this  
27 review will systematically explore the roles of security guards in health care contexts to create a centred  
28 body of evidence.

29 **Methods and analysis:** The study will systematically review existing quantitative and qualitative peer-  
30 reviewed literature on security guards in institutional health care so as to understand their roles. We will  
31 conduct the systematic review on 10 electronic databases: Biomed Central, SocIndex, ScienceDirect,  
32 Google Scholar, JSTOR, PsycARTICLES, PsycINFO, Scopus, Web of Science and Pubmed. Data  
33 extraction will be in the form of a word document. Mendeley software will be used to keep track of  
34 references, while the systematic review software, Rayyan, will be used for the screening, inclusion and  
35 exclusion of articles. If necessary, reviewer number three will conduct a third review should any disputes  
36 arise between the two initial reviewers. Quality assessment of the articles will be measured with the Critical  
37 Appraisal Skills Programme (CASP) tool for articles in terms of the research aims, methodology used,  
38 sample, data analysis, presentation of findings, values of the research, as well as trustworthiness if it is a  
39 qualitative study or reflexivity if it is a quantitative study. Studies dating back 32 years will be  
40 incorporated for a comprehensive review.

41 **Ethics and dissemination:** This systematic review will use publicly available peer-reviewed data from  
42 electronic databases and will therefore not require an ethical review, but rather, an ethics waiver. The  
43 systematic review protocol will be submitted for ethics waiver clearance from the Stellenbosch University  
44 Health Research Ethics Committee. The findings from this review will be disseminated through peer-  
45 reviewed publications and conferences.

46 **PROSPERO registration number:** CRD42022353653

### 47 **STRENGTHS AND LIMITATIONS OF THIS STUDY**

- 48 • With the aim of providing a comprehensive overview, both quantitative and qualitative studies  
49 will be included.
- 50 • In addition to the multidisciplinary databases, the reference sections of the included studies will  
51 be searched to find relevant articles that were missed by the search engines or not listed in the  
52 selected databases.
- 53 • The implementation and reporting of the systematic review will follow the Preferred Reporting  
54 Items for Systematic Review and Meta-Analysis (PRISMA) to ensure transparency and accuracy.

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3 55 • Studies which are published in languages other than English will not be included, which can lead  
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5 56 to a linguistically caused bias.  
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- Studies which are published in languages other than English will not be included, which can lead to a linguistically caused bias.

For peer review only

## 57 **Introduction**

### 58 ***Background***

59 Many health care facilities employ security guards as part of their security strategy.<sup>1</sup> Adeniyi and Puzi<sup>2</sup>  
60 attribute this to violent and aggressive behaviours that are not uncommon in many health care institutions,  
61 including hospitals and psychiatric and emergency units.<sup>3-6</sup> Such behaviours are amongst the key reasons  
62 for the employment of security guards.<sup>7</sup> Other reasons include the protection of valuable property held in  
63 health care facilities, public visitation control and perimeter patrols to protect the privacy and dignity of  
64 patients, and the provision of information in large facilities regarding where to find particular wards or units  
65 and the rules of visitation and entry. Security guards filter access control and protect the institution through  
66 the checking of visitor appointment cards and entry to the correct facility within institutions.<sup>8</sup>

67 An important function of security guards is safety intervention when patients threaten to harm themselves,  
68 staff, or other patients, or when there is a need for physical restraint or de-escalation.<sup>1,9</sup> Thus, a key role is  
69 to ensure patient and staff safety by managing violent and aggressive behaviour.<sup>10-12</sup>

70 Security guards are more likely than health care professionals to be injured at work, with many attacks  
71 occurring at night. Clearly, they are on the front line, commonly being deployed to reinforce the overall  
72 security programme of health facilities and being called in to situations of elevated risk.<sup>13</sup> In a study on  
73 security guards in Finland, 39% reported at least one incident of verbal aggression against them per month,  
74 19% reported at least one threat of physical aggression per month and 15% experienced at least one act of  
75 physical aggression per month.<sup>14</sup>

76 In addition to the official tasks that security guards are contracted for, they may also take on other roles,  
77 even if informally.<sup>15</sup> It is clear, therefore, that security guards take on numerous roles and perform several  
78 tasks, including, in some instances, tasks for which they are not adequately trained.<sup>16</sup> For instance, security  
79 guards may be asked to perform the role of informal interpreters when clinicians are not able to  
80 communicate with patients who speak languages which clinicians do not understand.<sup>17,18</sup> A study,  
81 conducted in South Africa at a psychiatric hospital, investigated the potential consequences for diagnostic  
82 assessments mediated by ad hoc interpreters who were employed as health care workers and household  
83 aides. The study found errors in the interpretations, which consequently affected the goals and outcomes of  
84 the clinical sessions, some potentially resulting in incorrect diagnoses of the severity of patient psychiatric  
85 illness. Within the context of the current research protocol, security guards may be assigned to carry out  
86 informal interpreting in the absence of training and support in interpreting skills, and, in addition, these  
87 security guards may be unfamiliar with technical medical and psychiatric terminology.<sup>17</sup>

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3 88 Sefalafala and Webster<sup>19</sup> note that security guards are often amongst the lower paid staff members at a  
4 89 health care facility. Given these pressures, some studies suggest that security guards may be prone to  
5 90 behavioural problems and mental health problems such as substance abuse, antisocial behaviour, physical  
6 91 aggression, and anger.<sup>20</sup> Notwithstanding, it appears that little attention has been given to the work of  
7 92 security guards in health care despite the fact that security guards are part of the broader health care  
8 93 workforce.<sup>20</sup>

13 94 This review seeks to systematically examine and synthesise research on the role of security guards in health  
14 95 care. To our knowledge, this will be the first review on this topic. We aim to understand critical processes  
15 96 and outcomes related to the use of security guards in health care. It is possible that the review may lead to  
16 97 recommendations for adequate training and support for this cadre of workers, as well as guidelines and  
17 98 policy recommendations.

## 21 99 **Methods and analysis**

### 23 100 *Types of studies*

25 101 Qualitative, quantitative and mixed method studies on the roles of security guards will be incorporated in  
26 102 this review. Scientific studies published in English will be included. Any studies reporting on the roles of  
27 103 security guards and their experience of these roles will be included. There is no geographical restriction –  
28 104 we will search for studies from high-, middle- and low-income countries. All studies included must have  
29 105 been peer-reviewed.

### 34 106 *Type of participants*

36 107 Studies must report on the roles and experiences of security guards but there are no other restrictions, for  
37 108 example, studies on health care workers' perceptions of the roles and experiences of security guards will  
38 109 be included.

### 41 110 *Search methods for identification of studies*

43 111 We will conduct the systematic review on 10 electronic databases: Biomed Central, SocIndex,  
44 112 ScienceDirect, Google Scholar, JSTOR, PsycARTICLES, PsycINFO, Scopus, Web of Science and  
45 113 Pubmed. Data extraction will be in the form of a Word document. Mendeley referencing software will be  
46 114 used to manage searched articles, thereafter transferred to the systematic review software, Rayyan, where  
47 115 duplicates will be removed. We have developed a search strategy that will be adapted to different search  
48 116 engines (see Table 1). In addition to database search results, reference sections of the included journal  
49 117 articles will be reviewed to identify any relevant articles that were missed by search engines.

### 55 118 *Search strategy*

119 The keywords listed in Table 1 will guide the searches. These strings will be expanded based on the  
 120 information retrieved from selected articles.

121 **Table 1**

122 **Search strings for electronic databases**

<b>Concept A: Security guards</b>	<b>Concept B: Health care</b>
Within Concept A, terms used will include:	Within Concept B, terms used will include:
“security guards” OR “security officers” OR “patrol officers” OR “attendant” OR “manhandle” OR “patient watch” OR “supervision” OR “management” OR “hospital safety” OR “policing” OR “security personnel” OR “hospital security” OR “hospital safeguarding” OR “guard” OR “keeper” OR “watchperson” OR “security officers” OR “hospital monitor” Or “security force”.	“hospital” OR “mental health” OR “psychiatric care” OR “inpatient psychiatric units” OR “emergency units” OR “psychiatry” OR “mental health” OR “mental institution” OR “psychiatric hospital” OR “psychiatric ward” OR “mental facility” OR “clinical settings” OR “health” OR “primary care” OR “behavioural unit” OR “clinical settings” OR “health care” OR “health” OR “health service” OR “medical aid” OR “medical assistance” OR “public health care” OR “health care service” OR “health-care” OR “health-related” OR “medical field” OR “clinics” OR “hospitals”.

123 ***Time period***

124 Articles reviewed will include those published from 1990 to 2022 to provide a comprehensive examination  
 125 and synthesis of the existing research.

126 ***Exclusion criteria***

127 This review will exclude grey literature, unpublished articles, opinion pieces, case reports, and publications  
 128 that do not have primary data and a clear description of the methods used. In cases where studies analysing  
 129 the same data are published in more than one journal, we will include the most recent and complete  
 130 publication. Any articles, research and data prior to 1990 will be excluded, as will studies in languages  
 131 other than English. Studies that focus on medical personnel and not on security guards will also be excluded  
 132 (see Table 2).

133 ***Inclusion criteria***

134 Studies published in English peer-reviewed journals and open sources accessed from the Stellenbosch  
 135 University library website will be included. Additionally, this study will focus on all age groups and studies  
 136 reported in English from 1990 to 2022. This will allow for a comprehensive scope in this niche area (see  
 137 Table 2).

## 138 **Table 2**

### 139 **Overall approach to inclusion and exclusion criteria**

	Included	Excluded
Publication type	English peer-reviewed journal articles.	
Study design	All study designs.	
Study population	All studies conducted on security guards of all ages in high-, middle- and low-income countries.	Grey literature, unpublished articles, cases and publications that do not have a clear description of methods used. Any data before 1990.
Exposure variables	N/A	
Outcome variables	All roles, uses and responsibilities reported by studies.	

### 140 ***Selection of studies to be included in the review***

141 To define the inclusion criteria, most studies utilise the PICO (Population, Intervention, Comparison,  
 142 Outcome) model. This model is used for quantitative clinical research.<sup>21</sup> This study, therefore, adopts  
 143 SPIDER (Sample, Phenomenon of Interest, Design, Evaluation, Research Type) which is a suitable  
 144 framework for the inclusion of qualitative, quantitative, and mixed studies<sup>22</sup> (see Table 3). Screening,  
 145 inclusion and exclusion of articles will be carried out using Rayyan. The screening process involves title  
 146 and abstract screening by two independent reviewers, followed by full text screening by two independent  
 147 reviewers. Where there are disagreements across the two reviewers, a third reviewer will carry out an  
 148 independent review to resolve differences.

## 149 **Table 3**

### 150 **SPIDER approach for selecting studies**

SPIDER (Sample, Phenomenon of Interest, Design, Evaluation, Research Type)
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Sample	Security guards working in health care and other health care providers, any age, and gender. The review is not restricted to geographical area, examining data from all over the world, thus including the perspectives of health care professionals internationally.
Phenomenon of Interest	The role of security guards in healthcare.
Design	Peer-reviewed published literature of any research design.
Evaluation	Characteristics, views, experiences.
Research Type	Qualitative, quantitative and mixed methods peer-reviewed studies.

151 The Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) flowchart will be an  
 152 additional retrieval strategy to document the search.<sup>23</sup> The first step will be screening the literature. A title  
 153 search will be conducted using the database and the study's keywords, these being documented on the title  
 154 extract and abstract search list. Only articles that fulfil the title inclusion criteria will advance to the second  
 155 level, which is the abstract search. The PRISMA flowchart will account for the number of records identified  
 156 or removed (see Figure 1 below).

157 [Place Figure 1 about here]

### 158 ***Quality appraisal and assessment of bias***

159 Upon selecting articles which fulfil the title and abstract search criteria, articles included will be appraised.  
 160 The Critical Appraisal Skills Programme (CASP) tool<sup>24</sup> is commonly used,<sup>25</sup> and an adapted version of the  
 161 CASP tool, proposed by Laher and Hassem<sup>26</sup>, will be used in this study. This tool consists of six items for  
 162 theoretical articles, 11 items for quantitative articles and 10 questions for qualitative articles, which will be  
 163 used as an appraisal tool in terms of the research aims, methodology used, sample, data analysis,  
 164 presentation of findings, values of the research, as well as trustworthiness if it is a qualitative study and  
 165 reflexivity if it is a quantitative study.<sup>26</sup>

166 The CASP tool itself proposes a cut-off for a study after a few questions/checklists, therefore any scoring  
 167 or grading is not recommended for studies being appraised.<sup>24</sup> The first few questions on the CASP checklist  
 168 are screening questions; if the answer to them is "yes", then the study is worth proceeding to the remaining  
 169 questions. An article must fulfil the full checklist in order to advance to the extraction phase.

### 170 ***Data extraction and management***

171 To extract data, reviewer number 1 will conduct data extraction in Word. Extracted data will be tabularised  
 172 to include study details (author, year of publication, country of study). In addition to author, year of

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3 173 publication, country of study, information on the roles and responsibilities of security guards in healthcare  
4 174 settings, including the scope of their work, how their roles as perceived by fellow healthcare workers and  
5 175 their impact on their workplace and patients will be extracted.

### 8 176 ***Data synthesis and analysis***

10 177 A narrative analysis/synthesis will be conducted to extract text which will then be narrated.<sup>21</sup> Popay et al.<sup>27</sup>  
11 178 outline four elements involved in reporting narratively, namely, 1) Developing a theory of how the  
12 179 intervention works, why and for whom; 2) Developing a preliminary synthesis of findings of included  
13 180 studies; 3) Exploring similarities/relationships in the data; and 4) Assessing the robustness of the synthesis.  
14 181 For the purpose of this study, only elements 2–4 will be included as the aim is not to develop an intervention,  
15 182 but rather to synthesize the roles of security guards in healthcare. The data will be presented in the form of  
16 183 a qualitative narrative description, in table format. For transparent reporting, the analysis will be guided by  
17 184 the PRISMA statement.

18 185 The planned start of the review will be as soon as the protocol has been accepted (probably in March 2023)  
19 186 and is expected to be completed in April 2024.

### 21 187 ***Patient and public involvement***

22 188 As this is a systematic review protocol, no patients or public will be involved.

### 24 189 **Ethics and dissemination**

25 190 This systematic review will use publicly available peer-reviewed data from the 10 identified search engines  
26 191 (Biomed Central, SocIndex, ScienceDirect, Google Scholar, JSTOR, PsycARTICLES, PsycINFO, Scopus,  
27 192 Web of Science and PubMed) and will therefore not require an ethical review, but rather, an ethics waiver.  
28 193 The systematic review protocol will be submitted for ethics waiver clearance from the Stellenbosch  
29 194 University Health Research Ethics Committee. The findings from this review will be disseminated through  
30 195 peer-reviewed publications and conferences.

31 196 **Authors' contributions:** LS, LiSh and SHR conceptualised the study. LiSh was responsible for drafting  
32 197 the protocol in close consultation with LS and SHR. QC, PS and TR provided significant edits to the  
33 198 protocol. All authors revised and approved the manuscript.

34 199 **Competing interests statement:** None declared.

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36 201 commercial or not-for-profit sectors.

37 202 **Figure 1:** Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) diagram of  
38 203 study selection process.



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# BMJ Open

## The Role of Security Guards in Healthcare Settings: A Protocol for a Systematic Review

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<b>Primary Subject Heading</b>:	Global health
Secondary Subject Heading:	Health policy, Public health, Mental health
Keywords:	PUBLIC HEALTH, Quality in health care < HEALTH SERVICES ADMINISTRATION & MANAGEMENT, GENERAL MEDICINE (see Internal Medicine), PSYCHIATRY

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Manuscripts

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4 1 **The Role of Security Guards in Healthcare Settings: A Protocol for a Systematic Review**

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## 23 **The Role of Security Guards in Healthcare Settings: A Protocol for a Systematic Review**

### 24 **Abstract**

25 **Introduction:** There is a paucity of literature on the comprehensive roles of security guards in health care,  
26 regardless of day-to-day observations of security guards playing an extensive role in this field. Thus, this  
27 review will systematically explore the roles of security guards in health care contexts to create a centred  
28 body of evidence.

29 **Methods and analysis:** The study will systematically review existing quantitative and qualitative peer-  
30 reviewed literature on security guards in institutional health care so as to understand their roles. We will  
31 conduct the systematic review on 10 electronic databases: Biomed Central, SocIndex, ScienceDirect,  
32 Google Scholar, JSTOR, PsycARTICLES, PsycINFO, Scopus, Web of Science and Pubmed. Data  
33 extraction will be in the form of a word document. Mendeley software will be used to keep track of  
34 references, while the systematic review software, Rayyan, will be used for the screening, inclusion and  
35 exclusion of articles. If necessary, reviewer number three will conduct a third review should any disputes  
36 arise between the two initial reviewers. Quality assessment of the articles will be measured with the Critical  
37 Appraisal Skills Programme (CASP) tool for articles in terms of the research aims, methodology used,  
38 sample, data analysis, presentation of findings, values of the research, as well as trustworthiness if it is a  
39 qualitative study or reflexivity if it is a quantitative study. Studies dating back 32 years will be  
40 incorporated for a comprehensive review.

41 **Ethics and dissemination:** This systematic review will use publicly available peer-reviewed data from  
42 electronic databases and will therefore not require an ethical review, but rather, an ethics waiver. The  
43 systematic review protocol will be submitted for ethics waiver clearance from the Stellenbosch University  
44 Health Research Ethics Committee. The findings from this review will be disseminated through peer-  
45 reviewed publications and conferences.

46 **PROSPERO registration number:** CRD42022353653

### 47 **STRENGTHS AND LIMITATIONS OF THIS STUDY**

- 48 • With the aim of providing a comprehensive overview, both quantitative and qualitative studies  
49 will be included.
- 50 • In addition to the multidisciplinary databases, the reference sections of the included studies will  
51 be searched to find relevant articles that were missed by the search engines or not listed in the  
52 selected databases.
- 53 • The implementation and reporting of the systematic review will follow the Preferred Reporting  
54 Items for Systematic Review and Meta-Analysis (PRISMA) to ensure transparency and accuracy.

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- 55 • Studies which are published in languages other than English will not be included, which can lead  
56 to a linguistically caused bias.
- 57 • This study employs a systematic review method of reviewing data. This approach that is rigorous,  
58 transparent and ensures results are trustworthy; however additional results might be identified by  
59 following another design.

For peer review only

## 60 **Introduction**

### 61 ***Background***

62 Many health care facilities employ security guards as part of their security strategy.<sup>1</sup> Adeniyi and Puzi<sup>2</sup>  
63 attribute this to violent and aggressive behaviours that are not uncommon in many health care institutions,  
64 including hospitals and psychiatric and emergency units.<sup>3-6</sup> Such behaviours are amongst the key reasons  
65 for the employment of security guards.<sup>7</sup> Other reasons include the protection of valuable property held in  
66 health care facilities, public visitation control and perimeter patrols to protect the privacy and dignity of  
67 patients, and the provision of information in large facilities regarding where to find particular wards or units  
68 and the rules of visitation and entry. Security guards filter access control and protect the institution through  
69 the checking of visitor appointment cards and entry to the correct facility within institutions.<sup>8</sup>

70 An important function of security guards is safety intervention when patients threaten to harm themselves,  
71 staff, or other patients, or when there is a need for physical restraint or de-escalation.<sup>1,9</sup> Thus, a key role is  
72 to ensure patient and staff safety by managing violent and aggressive behaviour.<sup>10-12</sup>

73 Security guards are more likely than health care professionals to be injured at work, with many attacks  
74 occurring at night. Clearly, they are on the front line, commonly being deployed to reinforce the overall  
75 security programme of health facilities and being called in to situations of elevated risk.<sup>13</sup> In a study on  
76 security guards in Finland, 39% reported at least one incident of verbal aggression against them per month,  
77 19% reported at least one threat of physical aggression per month and 15% experienced at least one act of  
78 physical aggression per month.<sup>14</sup>

79 In addition to the official tasks that security guards are contracted for, they may also take on other roles,  
80 even if informally.<sup>15</sup> It is clear, therefore, that security guards take on numerous roles and perform several  
81 tasks, including, in some instances, tasks for which they are not adequately trained.<sup>16</sup> For instance, security  
82 guards may be asked to perform the role of informal interpreters when clinicians are not able to  
83 communicate with patients who speak languages which clinicians do not understand.<sup>17,18</sup> A study,  
84 conducted in South Africa at a psychiatric hospital, investigated the potential consequences for diagnostic  
85 assessments mediated by ad hoc interpreters who were employed as health care workers and household  
86 aides. The study found errors in the interpretations, which consequently affected the goals and outcomes of  
87 the clinical sessions, some potentially resulting in incorrect diagnoses of the severity of patient psychiatric  
88 illness. Within the context of the current research protocol, security guards may be assigned to carry out  
89 informal interpreting in the absence of training and support in interpreting skills, and, in addition, these  
90 security guards may be unfamiliar with technical medical and psychiatric terminology.<sup>17</sup>



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3 91 Sefalafala and Webster<sup>19</sup> note that security guards are often amongst the lower paid staff members at a  
4 92 health care facility. Given these pressures, some studies suggest that security guards may be prone to  
5 93 behavioural problems and mental health problems such as substance abuse, antisocial behaviour, physical  
6 94 aggression, and anger.<sup>20</sup> Notwithstanding, it appears that little attention has been given to the work of  
7 95 security guards in health care despite the fact that security guards are part of the broader health care  
8 96 workforce.<sup>20</sup>

9 97 This review seeks to systematically examine and synthesise research on the role of security guards in health  
10 98 care. To our knowledge, this will be the first review on this topic. We aim to understand critical processes  
11 99 and outcomes related to the use of security guards in health care. It is possible that the review may lead to  
12 100 recommendations for adequate training and support for this cadre of workers, as well as guidelines and  
13 101 policy recommendations.

## 14 102 **Methods and analysis**

### 15 103 *Types of studies*

16 104 Qualitative, quantitative and mixed method studies on the roles of security guards will be incorporated in  
17 105 this review. Scientific studies published in English will be included. Any studies reporting on the roles of  
18 106 security guards and their experience of these roles will be included. There is no geographical restriction –  
19 107 we will search for studies from high-, middle- and low-income countries. All studies included must have  
20 108 been peer-reviewed.

### 21 109 *Type of participants*

22 110 Studies must report on the roles and experiences of security guards but there are no other restrictions, for  
23 111 example, studies on health care workers' perceptions of the roles and experiences of security guards will  
24 112 be included.

### 25 113 *Search methods for identification of studies*

26 114 We will conduct the systematic review on 10 electronic databases: Biomed Central, SocIndex,  
27 115 ScienceDirect, Google Scholar, JSTOR, PsycARTICLES, PsycINFO, Scopus, Web of Science and  
28 116 Pubmed. Data extraction will be in the form of a Word document. Mendeley referencing software will be  
29 117 used to manage searched articles, thereafter transferred to the systematic review software, Rayyan, where  
30 118 duplicates will be removed. We have developed a search strategy that will be adapted to different search  
31 119 engines (see Table 1). In addition to database search results, reference sections of the included journal  
32 120 articles will be reviewed to identify any relevant articles that were missed by search engines.

### 33 121 *Search strategy*

122 The keywords listed in Table 1 will guide the searches. These strings will be expanded based on the  
 123 information retrieved from selected articles.

124 **Table 1**

125 **Search strings for electronic databases**

<b>Concept A: Security guards</b>	<b>Concept B: Health care</b>
Within Concept A, terms used will include:	Within Concept B, terms used will include:
“security guards” OR “security officers” OR “patrol officers” OR “attendant” OR “manhandle” OR “patient watch” OR “supervision” OR “management” OR “hospital safety” OR “policing” OR “security personnel” OR “hospital security” OR “hospital safeguarding” OR “guard” OR “keeper” OR “watchperson” OR “security officers” OR “hospital monitor” Or “security force”.	“hospital” OR “mental health” OR “psychiatric care” OR “inpatient psychiatric units” OR “emergency units” OR “psychiatry” OR “mental health” OR “mental institution” OR “psychiatric hospital” OR “psychiatric ward” OR “mental facility” OR “clinical settings” OR “health” OR “primary care” OR “behavioural unit” OR “clinical settings” OR “health care” OR “health” OR “health service” OR “medical aid” OR “medical assistance” OR “public health care” OR “health care service” OR “health-care” OR “health-related” OR “medical field” OR “clinics” OR “hospitals”.

126 ***Time period***

127 Articles reviewed will include those published from 1990 to 2022 to provide a comprehensive examination  
 128 and synthesis of the existing research.

129 ***Exclusion criteria***

130 This review will exclude grey literature, unpublished articles, opinion pieces, case reports, and publications  
 131 that do not have primary data and a clear description of the methods used. In cases where studies analysing  
 132 the same data are published in more than one journal, we will include the most recent and complete  
 133 publication. Any articles, research and data prior to 1990 will be excluded, as will studies in languages  
 134 other than English. Studies that focus on medical personnel and not on security guards will also be excluded  
 135 (see Table 2).

136 ***Inclusion criteria***

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3 137 Studies published in English peer-reviewed journals and open sources accessed from the Stellenbosch  
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5 138 University library website will be included. Additionally, this study will focus on all age groups and studies  
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7 139 reported in English from 1990 to 2022. This will allow for a comprehensive scope in this niche area (see  
8  
9 140 Table 2).

10 141 **Table 2**

11  
12 142 **Overall approach to inclusion and exclusion criteria**

	Included	Excluded
Publication type	English peer-reviewed journal articles.	
Study design	All study designs.	
Study population	All studies conducted on security guards of all ages in high-, middle- and low-income countries.	Grey literature, unpublished articles, cases and publications that do not have a clear description of methods used. Any data before 1990.
Exposure variables	N/A	
Outcome variables	All roles, uses and responsibilities reported by studies.	

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35 143 ***Selection of studies to be included in the review***

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37 144 To define the inclusion criteria, most studies utilise the PICO (Population, Intervention, Comparison,  
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39 145 Outcome) model. This model is used for quantitative clinical research.<sup>21</sup> This study, therefore, adopts  
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41 146 SPIDER (Sample, Phenomenon of Interest, Design, Evaluation, Research Type) which is a suitable  
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43 147 framework for the inclusion of qualitative, quantitative, and mixed studies<sup>22</sup> (see Table 3). Screening,  
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45 148 inclusion and exclusion of articles will be carried out using Rayyan. The screening process involves title  
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47 149 and abstract screening by two independent reviewers, followed by full text screening by two independent  
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49 150 reviewers. Where there are disagreements across the two reviewers, a third reviewer will carry out an  
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51 151 independent review to resolve differences.

52 152 **Table 3**

53 153 **SPIDER approach for selecting studies**

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55 SPIDER (Sample, Phenomenon of Interest, Design, Evaluation, Research Type)  
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Sample	Security guards working in health care and other health care providers, any age, and gender. The review is not restricted to geographical area, examining data from all over the world, thus including the perspectives of health care professionals internationally.
Phenomenon of Interest	The role of security guards in healthcare.
Design	Peer-reviewed published literature of any research design.
Evaluation	Characteristics, views, experiences.
Research Type	Qualitative, quantitative and mixed methods peer-reviewed studies.

154 The Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) flowchart will be an  
 155 additional retrieval strategy to document the search.<sup>23</sup> The first step will be screening the literature. A title  
 156 search will be conducted using the database and the study's keywords, these being documented on the title  
 157 extract and abstract search list. Only articles that fulfil the title inclusion criteria will advance to the second  
 158 level, which is the abstract search. The PRISMA flowchart will account for the number of records identified  
 159 or removed (see Figure 1 below).

160 [Place Figure 1 about here]

### 161 ***Quality appraisal and assessment of bias***

162 Upon selecting articles which fulfil the title and abstract search criteria, articles included will be appraised.  
 163 The Critical Appraisal Skills Programme (CASP) tool<sup>24</sup> is commonly used,<sup>25</sup> and an adapted version of the  
 164 CASP tool, proposed by Laher and Hassem<sup>26</sup>, will be used in this study. This tool consists of six items for  
 165 theoretical articles, 11 items for quantitative articles and 10 questions for qualitative articles, which will be  
 166 used as an appraisal tool in terms of the research aims, methodology used, sample, data analysis,  
 167 presentation of findings, values of the research, as well as trustworthiness if it is a qualitative study and  
 168 reflexivity if it is a quantitative study.<sup>26</sup>

169 The CASP tool itself proposes a cut-off for a study after a few questions/checklists, therefore any scoring  
 170 or grading is not recommended for studies being appraised.<sup>24</sup> The first few questions on the CASP checklist  
 171 are screening questions; if the answer to them is "yes", then the study is worth proceeding to the remaining  
 172 questions. An article must fulfil the full checklist in order to advance to the extraction phase.

### 173 ***Data extraction and management***

174 To extract data, reviewer number 1 will conduct data extraction in Word. Extracted data will be tabularised  
 175 to include study details (author, year of publication, country of study). In addition to author, year of

176 publication, country of study, information on the roles and responsibilities of security guards in healthcare  
177 settings, including the scope of their work, how their roles as perceived by fellow healthcare workers and  
178 their impact on their workplace and patients will be extracted.

### 179 ***Data synthesis and analysis***

180 A narrative analysis/synthesis will be conducted to extract text which will then be narrated.<sup>21</sup> Popay et al.<sup>27</sup>  
181 outline four elements involved in reporting narratively, namely, 1) Developing a theory of how the  
182 intervention works, why and for whom; 2) Developing a preliminary synthesis of findings of included  
183 studies; 3) Exploring similarities/relationships in the data; and 4) Assessing the robustness of the synthesis.  
184 For the purpose of this study, only elements 2–4 will be included as the aim is not to develop an intervention,  
185 but rather to synthesize the roles of security guards in healthcare. The data will be presented in the form of  
186 a qualitative narrative description, in table format. For transparent reporting, the analysis will be guided by  
187 the PRISMA statement.

188 The planned start of the review will be as soon as the protocol has been accepted (probably in March 2023)  
189 and is expected to be completed in April 2024.

### 190 ***Patient and public involvement***

191 As this is a systematic review protocol, no patients or public will be involved.

### 192 **Ethics and dissemination**

193 This systematic review will use publicly available peer-reviewed data from the 10 identified search engines  
194 (Biomed Central, SocIndex, ScienceDirect, Google Scholar, JSTOR, PsycARTICLES, PsycINFO, Scopus,  
195 Web of Science and PubMed) and will therefore not require an ethical review, but rather, an ethics waiver.  
196 The systematic review protocol will be submitted for ethics waiver clearance from the Stellenbosch  
197 University Health Research Ethics Committee. The findings from this review will be disseminated through  
198 peer-reviewed publications and conferences.

199 **Authors' contributions:** LS, LiSh and SHR conceptualised the study. LiSh was responsible for drafting  
200 the protocol in close consultation with LS and SHR. QC, PS and TR provided significant edits to the  
201 protocol. All authors revised and approved the manuscript.

202 **Competing interests statement:** None declared.

203 **Funding statement:** This research received no specific grant from any funding agency in the public,  
204 commercial or not-for-profit sectors.

205 **Figure 1:** Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) diagram of  
206 study selection process.

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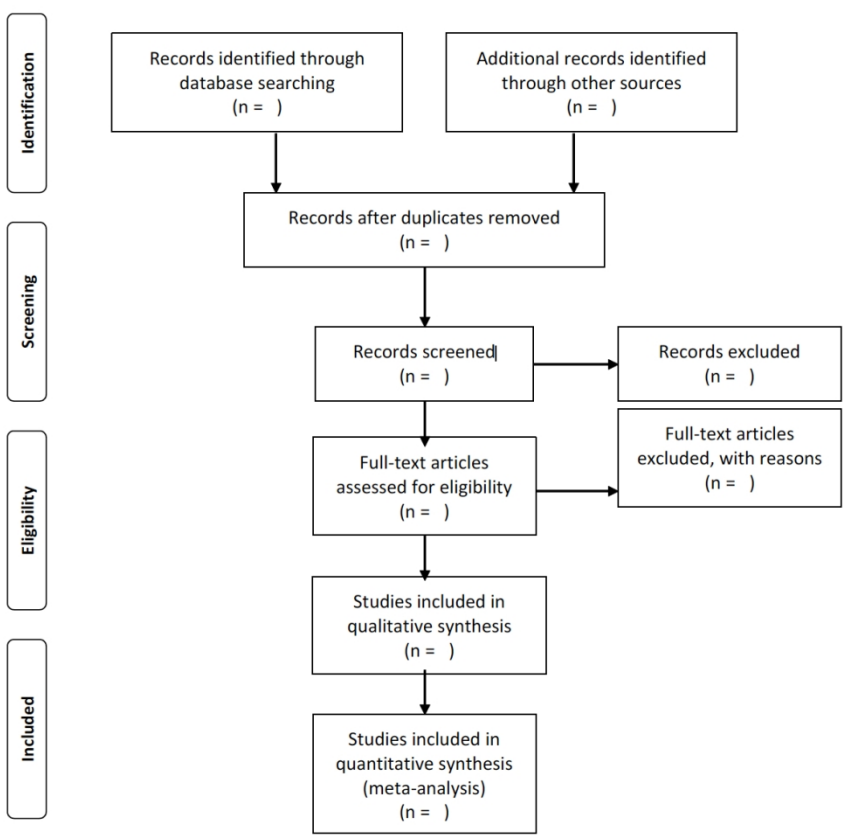


Figure 1: Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) diagram of study selection process.

245x222mm (144 x 144 DPI)

**PRISMA-P (Preferred Reporting Items for Systematic review and Meta-Analysis Protocols) 2015 checklist: recommended items to address in a systematic review protocol\***

Section and topic	Item No	Checklist item	Page/line
<b>ADMINISTRATIVE INFORMATION</b>			
Title:			
Identification	1a	Identify the report as a protocol of a systematic review	p.1/line 1
Update	1b	If the protocol is for an update of a previous systematic review, identify as such	N/A
Registration	2	If registered, provide the name of the registry (such as PROSPERO) and registration number	p.2/line 46
Authors:			
Contact	3a	Provide name, institutional affiliation, e-mail address of all protocol authors; provide physical mailing address of corresponding author	p.1/line 1-19
Contributions	3b	Describe contributions of protocol authors and identify the guarantor of the review	
Amendments	4	If the protocol represents an amendment of a previously completed or published protocol, identify as such and list changes; otherwise, state plan for documenting important protocol amendments	p.9/line 196-198
Support:			
Sources	5a	Indicate sources of financial or other support for the review	p.9/line 200-201
Sponsor	5b	Provide name for the review funder and/or sponsor	N/A
Role of sponsor or funder	5c	Describe roles of funder(s), sponsor(s), and/or institution(s), if any, in developing the protocol	N/A
<b>INTRODUCTION</b>			
Rationale	6	Describe the rationale for the review in the context of what is already known	p.4/5/ line 59-100
Objectives	7	Provide an explicit statement of the question(s) the review will address with reference to participants, interventions, comparators, and outcomes (PICO)	p.5/line 96-100 p. 7/line 143-150
<b>METHODS</b>			
Eligibility criteria	8	Specify the study characteristics (such as PICO, study design, setting, time frame) and report characteristics (such as years considered, language, publication status) to be used as criteria for eligibility for the review	p. 6/8/ line 125-158
Information sources	9	Describe all intended information sources (such as electronic databases, contact with study authors, trial registers or other grey literature sources) with planned dates of coverage	p. 5/6/ line 112-127
Search strategy	10	Present draft of search strategy to be used for at least one electronic database, including planned limits, such that it could be repeated	p. 6/ /table 1

Study records:			
Data management	11a	Describe the mechanism(s) that will be used to manage records and data throughout the review	p. 8/9/ line 172-175
Selection process	11b	State the process that will be used for selecting studies (such as two independent reviewers) through each phase of the review (that is, screening, eligibility and inclusion in meta-analysis)	p. 7/ line 142-150
Data collection process	11c	Describe planned method of extracting data from reports (such as piloting forms, done independently, in duplicate), any processes for obtaining and confirming data from investigators	p. 8/9 / line 172-175
Data items	12	List and define all variables for which data will be sought (such as PICO items, funding sources), any pre-planned data assumptions and simplifications	p. 7/8 / line 142-150, table 3
Outcomes and prioritization	13	List and define all outcomes for which data will be sought, including prioritization of main and additional outcomes, with rationale	p.7 / table 2
Risk of bias in individual studies	14	Describe anticipated methods for assessing risk of bias of individual studies, including whether this will be done at the outcome or study level, or both; state how this information will be used in data synthesis	p. 8/ line 160-171
Data synthesis	15a	Describe criteria under which study data will be quantitatively synthesised	p. 9 / line 176-184
	15b	If data are appropriate for quantitative synthesis, describe planned summary measures, methods of handling data and methods of combining data from studies, including any planned exploration of consistency (such as $I^2$ , Kendall's $\tau$ )	N/A
	15c	Describe any proposed additional analyses (such as sensitivity or subgroup analyses, meta-regression)	N/A
	15d	If quantitative synthesis is not appropriate, describe the type of summary planned	p. 9 / line 176-184
Meta-bias(es)	16	Specify any planned assessment of meta-bias(es) (such as publication bias across studies, selective reporting within studies)	N/A
Confidence in cumulative evidence	17	Describe how the strength of the body of evidence will be assessed (such as GRADE)	p.8 line 168

**\* It is strongly recommended that this checklist be read in conjunction with the PRISMA-P Explanation and Elaboration (cite when available) for important clarification on the items. Amendments to a review protocol should be tracked and dated. The copyright for PRISMA-P (including checklist) is held by the PRISMA-P Group and is distributed under a Creative Commons Attribution Licence 4.0.**

*From: Shamseer L, Moher D, Clarke M, Ghersi D, Liberati A, Petticrew M, Shekelle P, Stewart L, PRISMA-P Group. Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015: elaboration and explanation. BMJ. 2015 Jan 2;349(jan02 1):g7647.*