

PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (<http://bmjopen.bmj.com/site/about/resources/checklist.pdf>) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

ARTICLE DETAILS

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| TITLE (PROVISIONAL) | Associations between understanding of current treatment intent, communication with health care providers, preferences for invasive life-sustaining interventions and decisional conflict: Results from a survey of patients with advanced heart failure in Singapore |
| AUTHORS | Malhotra, Chetna; Sim, David; Fazlur, Jaufeerally; Finkelstein, Eric |

VERSION 1 – REVIEW

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| REVIEWER | S Allan Schaffer St. Boniface General Hospital WRHA Cardiac Sciences Program, Max Rady College of Medicine, University of Manitoba, Canada |
| REVIEW RETURNED | 07-Mar-2018 |

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| GENERAL COMMENTS | Well done study asking common sense question. How many patients in study population had implantable defibrillators. (should include in table I). Did this predict either understanding of disease prognosis or desire to have advanced life sustaining therapies. |
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| REVIEWER | Felicity Astin University of Huddersfield and Calderdale and Huddersfield NHS Trust, UK |
| REVIEW RETURNED | 18-May-2018 |

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| GENERAL COMMENTS | Thanks for the opportunity to review this manuscript. The topic is important and relevant to the readership but there are some areas that require attention. The title of the study would be improved with some reference to the study design. The abstract needs some revision to provide more details about the study design. There appears to be some limitations in the literature review. There are several studies published about the illness perceptions/representations of patients diagnosed with Heart Failure which include 'cure' and other studies about treatment beliefs that have not been cited (See a seminal paper published by CR Horowitz et al in Social Science and Medicine in 2004). There are also validated tools that are designed to measure illness perceptions, including 'cure'. A key issue in patients with Heart Failure is that they are unaware of their diagnosis. The cultural aspect of this work is very interesting and warrants further research. |
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VERSION 1 – AUTHOR RESPONSE

Reviewer Comments
Reviewer # 1

Comment 4: How many patients in study population had implantable defibrillators? (should include in table I). Did this predict either understanding of disease prognosis or desire to have advanced life sustaining therapies?

Response: 25.5% (n=72) of the patients in the study had a device implanted. Of these 64 (22.7%) patients had implantable cardioverter defibrillator and remaining 8 (2.8%) had pacemaker. In multivariate regressions, having a device implanted was not associated with patient understanding of current treatment intent or their desire to have invasive life-sustaining interventions.

In the revised manuscript being submitted we have included information about number of patients with cardiac devices (Table 1). All multivariate regressions are also now controlled for whether or not the patient had cardiac device implanted (a pacemaker or implantable cardioverter defibrillator).

Reviewer # 2

Comment 5: The title of the study would be improved with some reference to the study design.

Response: Please see response to Comment 1.

Comment 6: The abstract needs some revision to provide more details about the study design.

Response: Please see response to Comment 2.

Comment 7: There appears to be some limitations in the literature review. There are several studies published about the illness perceptions/representations of patients diagnosed with Heart Failure which include 'cure' and other studies about treatment beliefs that have not been cited (See a seminal paper published by CR Horowitz et al in Social Science and Medicine in 2004). There are also validated tools that are designed to measure illness perceptions, including 'cure'. A key issue in patients with Heart Failure is that they are unaware of their diagnosis. The cultural aspect of this work is very interesting and warrants further research.

Response: We have included several other citations in the revised manuscript including the paper by Horowitz et al (2004). The updated literature review is summarized below:

Several studies and theoretical frameworks have examined illness perceptions of patients including their beliefs about cure and its effects on treatment behaviour. (1-8) Within this context, a few studies with patients with CHF suggest that these patients do not understand that their current medical treatments including taking drugs or having surgeries or devices implanted are not curative.(9,10)

References:

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2. Mohammad A-SA, Ala A, Issa H, Beshar G, Donna F. Illness perception in patients with coronary artery disease: A systematic review. *International Journal of Nursing Practice*. 2016;22(6):633-648.
3. Timmermans I, Versteeg H, Meine M, Pedersen SS, Denollet J. Illness perceptions in patients with heart failure and an implantable cardioverter defibrillator: Dimensional structure, validity, and correlates of the brief illness perception questionnaire in Dutch, French and German patients. *Journal of Psychosomatic Research*. 2017;97:1-8.
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6. Grace SL, Krepostman S, Brooks D, et al. Illness perceptions among cardiac patients: Relation to

- depressive symptomatology and sex. *Journal of psychosomatic research*. 2005;59(3):153-160.
7. Hale ED, Treharne GJ, Kitas GD. The Common-Sense Model of self-regulation of health and illness: how can we use it to understand and respond to our patients' needs? *Rheumatology*. 2007;46(6):904-906.
 8. Diefenbach MA, Leventhal H. The common-sense model of illness representation: Theoretical and practical considerations. *Journal of Social Distress and the Homeless*. 1996;5(1):11-38.
 9. Horowitz CR, Rein SB, Leventhal H. A story of maladies, misconceptions and mishaps: effective management of heart failure. *Social science & medicine (1982)*. 2004;58(3):631-643.
 10. Rogers AE, Addington-Hall JM, Aberly AJ, et al. Knowledge and communication difficulties for patients with chronic heart failure: qualitative study. *Bmj*. 2000;321(7261):605-607.