**Author's response to reviews**

**Title:** Hardy Personality and Burnout Syndrome among nursing students in three Brazilian universities - An analytical study

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**Author's response to reviews:**

**COVER LETTER**

Author's response to reviews

Title: Hardiness Personality and Burnout Syndrome among nursing students of three Brazilian universities – An analytical study

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Version: 5 **Date:** 19 February 2014

Author's response to reviews: see over
Reviewer's report

Title: Hardiness Personality and Burnout Syndrome among nursing students of three Brazilian universities – An analytical study

Version: 4 Date: 8 January 2014

Reviewer: Salvatore R Maddi

Reviewer's report:

General

The topic of this manuscript is worthwhile, and the results do show a negative relationship between hardiness and burnout syndrome among nursing students. The implication of the manuscript is that hardiness protected the students against sinking into burnout syndrome in the stressful nursing training.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

The manuscript is poorly written, in a manner that seems caused by English being a second language for the authors. There are so many changes needed to this that it would have to be led by an editor, not a reviewer. In any event, I think the manuscript needs to be comprehensively improved, and then resubmitted.

The English writing across the paper was extensively improved by the Edanz Editing Service.

A major difficulty in the study is that it uses an old measure of hardiness, the 30 item measure of the Personal Views Survey. What has been used for the last 20 years or so is the 18 item version of this test, which has greater reliability and validity than the 30 item version. But, the older version had been used for many years as well.

Concerning the used instrument, the 30 item measure of the Personal Views Survey was chosen because is the only instrument validated for the Brazilian reality to measure Hardy Personality (page 6; line 151). I highlighted this information in yellow on the paper, as follows: The Hardiness Scale (HS) was
adapted from the 2009 Brazilian version [18], which was validated in 2012.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
None

Discretionary Revisions (which the author can choose to ignore)

The implication of the manuscript is that hardiness protected the students against sinking into burnout syndrome in the stressful nursing training. With regard to this, it would have been better to measure hardiness at the point when the training began, and burnout syndrome near the end of the training.

We did not perform these analyses because we did not get a first semester sample numerically enough to follow from the beginning to the end of nursing training. So, as we analyzed the students of all semesters as one population and considering that the experiences lived by students in each semester are different, any kind of comparisons or analysis per semesters or degree's period could lead to wrong informations.

Level of interest: An article of importance in its field
Quality of written English: Not suitable for publication unless extensively edited
Statistical review: Yes, and I have assessed the statistics in my report.

Reviewer's report

Title: Hardiness Personality and Burnout Syndrome among nursing students of three Brazilian universities – An analytical study

Version: 4 Date: 23 October 2013.
Reviewer: Lesley Wilkes.

Reviewer's report:
General
None

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

1. Editing and correction of English expression

The English writing across the paper was extensively improved by the Edanz Editing Service.

2. Reasons why research important to nurse education in introduction and in discussion/conclusion

The reason concerning the importance of the study to nurse education was described in introduction and in discussion/conclusion of the paper. Besides, we described this importance in the background of the abstract. These changes are highlighted in yellow, as follows:

Abstract
Background (page 2; line 29)
Nursing students may exhibit characteristics of resistance to stress, such as Hardiness, which can reduce the risks of Burnout. However, we located only one published study about these phenomena among nursing students. Thus, we investigated the association between Hardiness and Burnout in nursing students.

Paper
Background (page 4; line 97)
It is important to study Burnout among nursing students because this syndrome has been found to be related to decreased academic performance[23], which can influence the quality of nursing care in professional life and expose patients to care-related risks. Burnout may also cause nurses to leave a nursing career during the first years of work, which can lead to nursing staff overload and to high levels of absenteeism [15-16]. On the other hand, Hardiness provides a buffer to stress, which has a protective effect against Burnout and its negative outcomes during nursing education and practice.

Discussion (page 13; line 299)
Various studies have been conducted to understand the influence of Hardy Personality on the occurrence of different phenomena related to stress. In research with college students in Ohio (USA), the results indicated that Hardy students are less likely to have depression when exposed to the stressors of
personal and academic situations [29]. An investigation of students in California (USA) showed that a Hardiness Personality was the strongest predictor of academic performance, when compared with other variables, such as well-being, academic attitudes and life satisfaction [30]. In a study with Iranian students, there was a statistically significant, negative correlation between Hardiness and mental disorders [31]. In view of the benefits of Hardiness to health, researchers applied a strategy to promote Hardiness, based on theoretical training, to increase the academic performance of college students in California [32]. It may also be worthwhile to promote Hardiness among nursing students to promote a satisfying educational process, which develops qualified professions to provide nursing care and reduces risks to health among future nursing professionals.

Conclusion (page 13; 310 and 313).

We did not find a preponderance of Burnout Syndrome among nursing students. However, some had high Emotional Exhaustion that is an initial feature of the syndrome, and warrants attention to avoid an increase of nursing students with Burnout. The absence of Burnout in 68.00% of Hardy population, and the statistically significant difference between these variables, strengthens the assertion that Hardiness is a characteristic that promotes health and reduces disease, which was the premise of this research. Specifically, we hypothesized that Hardiness protects students from succumbing to Burnout.

Since Burnout has negative effects on the academic performance of the nursing students and, in long term, to the quality of nursing care, we recommend that interventions to promote Hardiness should be conducted with nursing students to avoid or reduce the occurrence of Burnout.

3. Better explanation of results and what they are telling the reader.

These explanations were provided for each finding of the study and they are highlighted in yellow in the paper’s results, as follows:

We observed that 64.04% of students had high levels of Emotional Exhaustion, 35.79% had high levels of Cynicism and 87.72% had low levels of Professional Efficacy. This indicates that some students were feeling emotionally exhausted (possibly due to academic requirements), treating people in a detached way and feeling incompetent as students, given the academic demands. The analyses of the subscales revealed that 24.74% of the participants were experiencing Burnout, i.e., they were living with chronic stress, possibly caused by the academic environment.(page 9; line 211)

With regard to Hardiness, we found 48.77% of students with a high level of Control, 61.40% with a high level of Commitment and 35.44% with a high level of Challenge. These results indicate that a portion of the nursing students were trying to control their situation rather than be passive and powerless about the situation. They also seem to stay involved with people and situations and to
interpret the stressor as an opportunity to learn. .(page 9; line 217)

There was a statistically significant difference (p=0.033) between the frequency of Burnout and Hardy Personality among the nursing students (Table 2). That is, Burnout frequencies differed significantly in relation to the frequency of Hardiness. .(page 10; line 223)

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

None

Discretionary Revisions (which the author can choose to ignore)

None

Level of interest: An article whose findings are important to those with closely related research interests.

Quality of written English: Not suitable for publication unless extensively edited

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests: no conflict of interest