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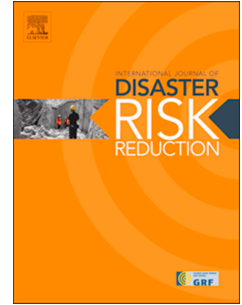
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Preparedness and Resilience of Student Nurses in Northern Queensland Australia for Disasters

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1 Abstract

2

3 Preparing for a disaster helps preserve the health and welfare of all involved, collectively
4 increasing the resilience of individuals and overall community. Nurses hold a wide range of
5 responsibilities related to disaster preparedness and response that are vitally important in
6 times of crisis. While the disaster preparedness of nurses has been documented in nurse
7 practitioners and registered nurses, disaster preparedness is relatively unknown in student
8 nurses. This study measured disaster preparedness and resilience in a cohort of 66 2nd and
9 3rd year nursing students from James Cook University, Australia utilising the Disaster
10 Preparedness and Evaluation Tool and the 10 point Connor-Davidson Resilience Scale. The
11 student nurses demonstrated a lack of knowledge surrounding disaster preparedness but a
12 willingness to contribute time and their limited skills in a disaster setting. Their resilience
13 score was similar to that of other published results. No correlation between disaster
14 preparedness and resilience was identified. This study suggests that while student nurses
15 have the willingness to participant in disaster preparedness and response, they do not
16 believe they possess the necessary skillset or knowledge. Suitable disaster orientated
17 education may increase the ability of student nurses to assist in crisis situations.

18

19 Keywords

20 Nursing, Disaster, Preparedness, Resilience, Education

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26 1. Introduction

27 The global disaster agenda steered by the Sendai Framework, and endorsed by the United
28 Nations General Assembly, clearly recognises that disaster risk reduction is a shared
29 responsibility of the State and stakeholders, which includes the general populous [1]. Pivotal
30 to this framework are the Four Priorities for Action, which specifically acknowledge
31 knowledge acquisition (Priority Area 1), and resilience enhancement (priority Area 3) as a
32 means of enhancing disaster risk assessment, prevention, mitigation, preparedness and
33 response [1].

34 With a historical propensity across most sectors to act reactively rather than proactively to
35 disaster, there is a push globally to enhance disaster preparedness over disaster mitigation.
36 Integrating effective and sustainable disaster risk reduction measures that can be applied to
37 individuals are an integral element in the ability of a community to “Build Back Better” in
38 disaster recovery, rehabilitation and reconstruction [2]. It is clear from the literature there is
39 not a singular blueprint or one size fits all approach to bolster community resilience in times
40 of crisis. Rather, it is the dynamic connection and fluidity of a community, the social
41 cohesion on varying levels, and knowledge acquisition and understanding of the bigger
42 picture that enables the community as a whole to create their own solutions.

43 Community social cohesion and altruism at macro, mezzo and micro levels encourages
44 proactive protection against the loss of assets, livelihoods, and infrastructure. In turn, this
45 creates a sense of security and wellbeing, which accelerates the ability to recover. Preparing
46 for a disaster and protecting key infrastructure helps preserve the health and welfare of all
47 involved, which collectively increases the resilience of individuals and the overall community
48 [3].

49 Nurses account for nearly 50% of the global health workforce [4] and frequently top the
50 polls of most trusted professionals [5]. Duty bound and advocates for patients in and out of
51 the hospital setting, the public assume nurses will step up in a crisis -- and generally, nurses
52 do [4]. Proving to be an essential resource nurses hold a wide range of responsibilities
53 related to disaster preparedness and response including: a broad skill set, diverse
54 communication skills, leadership, creativity, and flexibility and adaptability, all of which are
55 vitally important in times of crisis [6]. Particular to the nursing profession, and a key

56 strength within disaster and crisis settings, are the values of 'caring, compassion and
57 community' which connect nurses to the communities they serve.

58 While the disaster preparedness of nurses has been documented in nurse practitioners [7]
59 and isolated groups of registered nurses [8, 9], disaster preparedness of student nurses is
60 relatively unknown. In times of crisis, nursing students present an untapped workforce,
61 which could boost health system capacity and enhance population health outcomes [10-12].

62 Utilising a nursing student cohort from a regional university of Northern Australia, this study
63 aimed to: (1) measure the disaster preparedness of nursing students; (2) measure the
64 general resilience of nursing students; and (3) determine if there is an association between
65 disaster preparedness and general resilience.

66 2. Material and methods

67 2.1. Participants and setting

68 Participants were intentionally recruited from a second and third year student cohort in the
69 Bachelor of Nursing Science (BNS) program at James Cook University (JCU). At second and
70 third year levels, the students are beginning to create their professional nursing identity,
71 have experience within the healthcare system and are more established within the program
72 The JCU BNS program is delivered across five sites consisting of two larger campuses and
73 three smaller teaching sites in North Queensland, Australia. Even though the region is
74 prone to tropical cyclones, coastal inundation from storm tides and storm surges, flooding,
75 fire and drought [13, 14], minimal disaster or hazard content is contained within the BSN
76 program. A large percentage of JCU's nursing students are born and raised in the region
77 [15]

78 Participants were recruited utilising convenience sampling strategies. This choice of
79 sampling strategy was used as the researchers were interested in basic data and trends
80 without impediment of using a randomised sample [16]. Second and third year nursing
81 students across all modes of delivery (internal and external delivered BNS program) for all
82 JCU sites were contacted (N=1442) via email and invited to participate in a disaster
83 preparedness and resilience research study and a two-day disaster education workshop

84 entitled 'Resilient Communities in Disaster'. In addition to the email invitation, posters
85 advertising the study and workshop were placed on student noticeboards.

86 Participation was voluntary with no additional academic credit or links to the Bachelor of
87 Nursing Science program. Participants had the option of joining in the research component
88 only, the disaster education workshop only or both the research and the workshop.

89 Potential participants were provided with information sheets outlining the research process
90 and provided the opportunity to ask questions. Selection criteria was based on second or
91 third year enrolment in the JCU nursing program and a proficiency in the English language.
92 No students were excluded from the research study.

93 2.2 Data collection instruments

94 Data collection occurred through the distribution of a three-part self-administered survey
95 consisting of: (1) general demographic and disaster experience questions; (2) the Disaster
96 Preparedness Evaluation Tool (DPET); and (3) the 10 point Connor-Davidson Resilience Scale
97 (CD-RISC).

98 The general demographic section of the survey asked participants their age, gender, year
99 level of study and number of years lived in the North Queensland region. The disaster
100 experience section asked participants about the types and frequency of disasters
101 experienced, their involvement, and perceived level of preparedness.

102 The second component of the survey, the DPET, was originally designed by Tichy, Bond,
103 Beckstrand, & Heise to measure the disaster preparedness of nurse practitioners
104 [7] and later revised for registered nurses [8]. The DPET has been used and validated in a
105 number of countries and health settings. The original tool had a Cronbach alpha internal
106 consistency reliability score of 0.91 [7] and 0.90 in the subsequent revision for use with
107 Registered Nurses [8]. The tool when used for this study had a Cronbach alpha internal
108 consistency reliability score of 0.88, which demonstrates good test, retest reliability. Author
109 permission was sought and granted to use the DPET for this study. The DPET consists of 68
110 disaster related questions divided into four sections encompassing the level of
111 preparedness, comprising of 25 items that were grouped into sub categories of knowledge,
112 disaster skills and personal preparedness. Level of preparedness for response containing 16

113 items sub grouped into knowledge and patient management and finally level of
114 preparedness for disaster recovery. The first three sections containing 47 questions
115 correspond to a series of six point Likert scale (strongly disagree to strongly agree) questions
116 relating to each stage of a disaster, while the fourth section contains a mix of 21 multiple
117 choice and free text questions. The tool was altered in that, where appropriate, 'nurse
118 practitioner' was replaced with 'nursing student'.

119 The third component of the survey, the 10-point CD-RISC, was used to measure participant
120 resilience. The CD-RISC is a well validated measure of resilience [17] and is generally
121 considered the 'gold standard' for assessing resilience in adult populations [17]. Available in
122 a suite of 2, 10 and 25 questions, the CD-RISC has been tested extensively and shows sound
123 psychometric properties clearly distinguishing between greater and lesser resilience [18,
124 19]. Good internal consistency and test-retest reliability is present in all testing [18, 19].
125 Possible responses range from 0-4 (never to almost always), with a total score of 40 points
126 possible in the 10 point variation. The CD-RISC scoring system is such that the higher the
127 score the higher the resilience in the individual.

128 2.3 Data analysis

129 Participant responses for all three data collection instruments were entered into SPSS
130 version 25 (IBM, SPSS, Chicago. IL. USA). Sample characteristics were obtained using
131 descriptive statistics, with categorical characteristics described using absolute and relative
132 frequencies. Scale variables for the DPET and CD-RISC tools were described using mean and
133 standard deviation. The DPET and CD-RISC tools were tested for correlation. Free text
134 responses were analysed using modified content analysis, an interpretive, inductive
135 approach which lends itself to qualitative data analysis when little is known of the
136 phenomenon [20]. The objective of content analysis is to systematically transform large
137 amounts of text into an organised and concise summary of the key results [21] and involves
138 open coding and identification of abstract categories. The abstractions were grouped
139 together into categorical schema to help explain the phenomenon.

140 2.4 Ethical Consideration

141 Ethics approval was granted by the James Cook University Human Research Ethics
142 Committee (H7508).

143 3. RESULTS

144 3.1 Demographics and disaster experience

145 A total of 66 surveys were completed by JCU nursing students, a participation rate of 4.6%,
146 of which, 57 (86%) were female and 9 (14%) male. The age of participants ranged from 17 to
147 51 years ($M=29$, $SD=9.9$) and time spent in North Queensland ranged from 1 to 49 years
148 ($M=14$, $SD=11.68$). Seventy-six percent ($n=50$) of participants reported previous disaster
149 experience, with 46% ($n=30$) experiencing more than one event. Twenty percent ($n=13$) of
150 participants had responded to a disaster event, with the majority of these (61%, $n=8$)
151 involved in community clean up after the event. There was a variety of events reported by
152 the students from bush fires, cyclones, flood and manmade disasters. When asked "How
153 prepared do you think you are? On a scale with 0 being not prepared and 10 being
154 extremely prepared", a mean score of 4.80 ($r=2-10$, $SD=2.5$) was reported.

155 3.2 DPET

156 Table 1 outlines responses to the 25 item ($\alpha =0.93$) first section of the DPET, relating to
157 preparedness for a disaster. The mean participant score was 3.36. There was an elevated
158 interest in targeted disaster educational opportunities ($M=4.89$, $SD=1.26$) with only 18%
159 ($n=12$) having previously participated in formalised disaster education. Few participants
160 ($n=11$) had been involved in regular workplace disaster/emergency education ($M=2.11$,
161 $SD=1.38$) or workplace drills ($M=3.14$, $SD=1.88$), though ($n=32$) of participants suggested it
162 was a priority. Forty percent of respondents ($n=26$) stated they were not sure if workplace
163 disaster plans existed. Where a plan existed, 47% ($n=31$) were not sure how well the plan
164 would be executed.

165 Table 2 outlines responses to the 16 item second section of the DPET ($\alpha = 0.94$). This
166 section relates to knowledge and confidence to act in the mitigation and response phase of
167 a disaster. The questions are ranked by score from highest to lowest. The mean participant
168 score was 3.02. which reflected their positions as student nurses as opposed to nurse
169 practitioners.

170 Table 3 outlines responses to the six item ($\alpha = 0.89$) section of the DPET relating to
171 evaluation phase of a disaster, recovery preparedness. The mean participant score was 2.86.
172 Responses in this section reflected the participants overall perception that they did not have
173 the skills or knowledge to assist with the psychological first aid that can be required in a
174 post disaster recovery period.

175 Within the multiple choice and free text section of the survey, participants were asked to
176 describe in their own words, what priority they would give to education on disaster
177 preparedness and management if it were included in an undergraduate nursing curriculum.
178 Those that answered the question gave it a high to medium priority ($n=31$). When asked to
179 describe one thing that would make them more prepared 69% ($n=46$) stated the need for
180 education, knowledge and how to manage yourself and others. Participants indicated that
181 as both students and future registered nurses they had a role assisting with the recovery
182 efforts of their patients and community. Eighty-five percent ($n=56$) of respondents added
183 education about biological agents and ways to identify the signs and symptoms of a
184 biological exposure was an important element to consider in education packages. Seventy
185 one percent ($n=47$) of participants rated their capability to respond between 'very limited'
186 and 'okay', with the remaining 20% ($n=13$) reporting a 'fair' to 'high' level of perceived
187 ability.

188 3.3 Resilience

189 Table 4 outlines participant responses to the CD-RISC. Overall scores ranged from 15 to 40
190 of a possible total of 40. The mean score for resilience was 29.72 with the Cronbach alpha of
191 0.83. The ability to see the humorous side of things and believing that they can achieve
192 goals despite obstacles were the highest scoring statements whilst the lowest scoring was
193 that they were not easily discouraged by failure. There was no significant correlation
194 between preparedness and resilience ($p=0.076$).

195 4. Discussion

196 This study was conducted to determine the disaster preparedness and resilience of a
197 Bachelor of Nursing Science student nursing cohort in North Queensland, Australia. The
198 results of the perceived level of disaster preparedness and the DPET suggest an overall low

199 to moderate level of disaster preparedness, consistent with several studies utilising this tool
200 with registered nurses [8, 9]. The literature concerning nurses ability to be involved in an
201 event shows that knowledge is key to preparedness [8, 10, 22-24] and with that knowledge
202 also comes a willingness to be involved [22, 25, 26]. With that lack of knowledge also comes
203 a very real feeling of being underprepared to respond [8, 23-27]

204 4.1 DPET

205 The first section of the DPET contains 25 items across the subcategories of disaster
206 knowledge, disaster skills and family preparedness. Overall, the cohort scored well in
207 questions concerning disaster knowledge and family preparedness relative to questions
208 focusing on disaster skills in which the scores were lower. Family preparedness was
209 comparatively higher than that found in Hong Kong [28] and Indonesian [23] registered
210 nurses.

211 In 2016 Thobiaty, Williams and Plummer [29] performed a scoping review to identify the
212 most common domains of the core competencies of disaster nursing. What was highlighted
213 in the studies reviewed was that nurses need to have essential skills and knowledge to
214 competently plan for disasters. Tichy et al [7] also indicate the necessity for knowledge and
215 planning. With this in mind, it is clear that a structured framework of knowledge and skills to
216 capacity build nurses with tools to meet the needs of a ever changing landscape is not being
217 taught. Although a large number of the participants in this study had experienced a disaster
218 previously and some had responded in the recovery phase, they indicated they had little
219 knowledge of what the framework was for the disaster response phase. This lack of
220 knowledge aligns with a number of previous studies where participants showed a high level
221 of willingness to be involved in the disaster response, but were not completely clear of their
222 role [30-33]. The willingness to act as reported by the students in this study, supports the
223 known response of nurses worldwide, whether registered or students [7, 22, 25, 26] .

224 4.2 Mitigation and response

225 The second section of the DEPT concerns the response ability of the study participants in a
226 disaster setting, categorised into 'knowledge-specific responses' and 'patient management
227 during response'. In this study, the participants scored particularly poorly in areas

228 concerning bioterrorism/biological attacks in three distinct settings: isolation (M=2.8,
229 SD=1.44), decontamination (M=2.67, SD=1.40) and surveillance (M=3.09, SD=1.32). These
230 results are comparable to that of Öztekin *et al* [24] in which bioterrorist/biological attacks
231 are not experienced on large or regular scales within the study area. Response skills and
232 education of this type of event are seriously lacking, highlighting an area of gross
233 vulnerability [34].

234 4.3 Recovery preparedness

235 The final section of the DPET concerns disaster recovery preparedness, including recovery
236 knowledge (one question) and recovery management (five questions). Disaster recovery,
237 whilst incorporating the physical elements of destruction, also involves the treatment and
238 healing of the psychological impacts to individuals, families and communities [35, 36].
239 Participants in this study rated their abilities in managing (assessing, treating and
240 evaluating) emotional outcomes for Acute Stress Disorder and Post Traumatic Stress
241 Syndrome quite poorly. Similar results have been observed in nurses in southern Japan [24]
242 and Indonesia [23]. Extensive research by Azzollini, Depaula [37] and the World Health
243 Organisation, War Trauma Foundations [38] advocate that psychological intervention
244 (primarily psychological first aid) should be administered as soon as possible post disaster
245 events as it is critically important for the ongoing mental health of those involved,
246 suggesting the need for improved education for student nurses in this area.

247 4.4 Open ended questions

248 As per much of the nursing literature about disaster response, the students expressed great
249 interest in disaster education and an almost unanimous belief that disaster education was
250 extremely important for those in the nursing profession [31, 33, 39]. The students identified
251 that although they were unsure how and where to access appropriate education, they
252 believed education would assist them to be prepared. These results mirrored the findings of
253 previous research using the DPET with Asia Pacific Registered Nurses [33] and Jordanian
254 nurses working in militarised zones [8].

255 4.5 Resilience

256 There are many individual characteristics of resilience, including recognition of limits, action
257 orientated approaches, being adaptable to change and viewing challenges or stress as
258 opportunities [40]. In a disaster situation, these traits are recognised as crucial for successful
259 outcomes not only for individuals, but families, communities and workforces [41]. In this
260 study, the mean level of resilience for the nursing student cohort was 29.72. This is higher
261 compared to nursing student cohorts in Hong Kong (24.00) [28], India (26.31)[42] , and
262 Nigeria (27.64)[43] but lower compared to a third year nursing student cohort in Australia
263 (37.00) [44].

264 5. Strengths and limitations

265 To the best of the authors' knowledge, this project is the first to measure disaster
266 preparedness in a student nurse cohort utilising validated measurement tools. This study
267 was limited by its convenience sampling methodology. The sample size was not ideal when
268 compared to the population drawn from, however we have not tried to generalise the
269 findings or apply them to a wider audience. The researchers also acknowledge that this
270 study likely attracted participants who were interested in disaster education, we would
271 suggest that this group would be the first to raise their hands in a disaster situation. It has
272 highlighted several important areas where student nurses would feel particularly
273 underprepared if called upon in a disaster event.

274 6. Conclusion

275 The results of this research fortify the current body of work that reveal some common areas
276 of weakness in disaster preparation of student nurses, registered nurses and nurse
277 practitioners. While it has been researched and written about, in Australia there has been
278 little change in the curriculum of undergraduate nurses to include the recommended
279 requirement of the ICN/WHO disaster competencies. Leaving this education to the post
280 graduate space. The question remains could they fulfil this role with their current level of
281 preparedness, just because they have the skills of a nurse? Further research needs to be
282 conducted to determine the level of education required and when that education should be
283 delivered.

284 Disaster prone regions necessitate the need for robust preparatory plans and disaster risk
285 mitigation policies. With a global intent to increase the resilience of communities before,
286 during and after disaster events and share the responsibility of action, capacity building
287 nursing staff including student nurses has the potential to address key factors such as surge
288 capacity.

289 Although this study was aimed specifically at nursing students, the potential exists to
290 capacity build all interested health care students and community members. By equipping
291 health care students and local champions with education about disaster frameworks, risk
292 mitigation, and psychological first aid the potential exists to increase the resilience of
293 individuals and the community as a whole and as such prevent loss of life, reduce property
294 damage, reduce business interruption and lower emergency response and disaster recovery
295 costs.

296 Declarations of interest

297 None

298 Funding sources

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300 part of a larger resilience building project.

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420

TABLE 1: LEVEL OF PREPAREDNESS

Question number	Question	Mean	SD	n
9	I find the research literature on disaster preparedness is understandable	5.2	11.8	66
8	I find that the research literature on disaster preparedness and management is easily accessible	5.05	11.83	66
7	I would be interested in educational classes on disaster preparedness	4.89	1.26	66
11	Finding relevant information about disaster preparedness related to my community needs is an obstacle to my level of preparedness.	4.74	11.84	66
17	I am aware of what the potential vulnerabilities in my community are (e.g. earthquake, floods, terror, etc.).	4.72	1.26	66
18	I know the limits of my knowledge, skills and authority as a nurse/midwife (registered or student) to act in disaster situations, and I would know when I exceed them	4.38	1.2	66
14	In case of a disaster situation I think that there is sufficient support from local officials on the county or state level	4.26	1.25	66
12	I know where to find relevant research or information related to disaster preparedness and management to fill gaps in my knowledge	3.85	1.28	66
25	I have an agreement with loved ones and family members on how to execute our personal/family emergency plans.	3.78	1.51	66
24	I have personal/family emergency plans in place for disaster situations	3.78	1.46	66
19	In case of a bioterrorism/biological attack, I know how to use personal protective equipment	3.66	1.6	66
22	I am familiar with the local emergency response system for disasters	3.56	1.47	66
3	I know who to contact in disaster situations, chain of command in my community	3.45	1.67	66
10	I consider myself prepared for the management of disasters	3.33	1.43	66
23	I am familiar with accepted triage principles used in disaster situations	3.25	1.41	66
13	I have a list of contacts in the medical or health community in which I Practice. I know referral contacts in case of a disaster situation (health department, e.g.).	3.18	1.65	66
1	Participate in disaster drills or exercises at my workplace	3.14	1.88	66

6	I am aware of classes about disaster preparedness and management in the community, workplace or the university	2.83	1.47	66
21	In case of a bioterrorism/biological attack, I know how to perform isolation procedures so that I minimize the risks of community exposure	2.8	1.44	66
20	In case of a bioterrorism/biological attack, I know how to execute decontamination procedures	2.67	1.4	66
2	I have participated in or do participate in emergency plan drafting	2.44	1.79	66
5	I read journal article related to disaster preparedness	2.14	1.36	66
4	I participate in educational activities on a regular basis	2.11	1.38	66
16	I would be considered a key leadership figure in my community in a disaster situation	2.03	1.33	66
15	I participate/have participated in creating new guidelines, emergency plans, or lobbying for improvements on the local or national level	1.89	1.4	66

TABLE 2: RESPONSE KNOWLEDGE

Question number	Question	Mean	SD	n
32	As a nurse/midwife (registered or student), I would feel confident in my abilities as a direct care provider and first responder in disaster situations.	3.55	1.49	66
41	I would feel confident providing patient education on stress and abnormal functioning related to trauma.	3.53	1.41	66
37	Some research showed that Nurse Practitioner's felt constrained by medical malpractice concerns or license restrictions to respond to disasters. – This is a constraint for me as well	3.45	1.71	66
34	As a nurse/midwife (registered or student), I would feel reasonable confident in my abilities to be a member of a decontamination team	3.42	1.45	66
28	I am familiar with psychological interventions, behavioural therapy, cognitive strategies, support groups and incident debriefing for patients who experience emotional or physical trauma.	3.37	1.32	66
27	I can manage the common symptoms and reactions of disaster survivors that are of affective, behavioural, cognitive and physical nature	3.34	1.21	66
36	I would feel confident working as a triage nurse practitioner, and setting up temporary clinics in disaster situations	3.2	1.49	66
40	I would feel confident implementing emergency plans, evacuation procedures, and similar functions	3.14	1.46	66
29	I am able to describe my role in the response phase of a disaster in the context of my workplace, the general public, media and personal contacts	3.11	1.28	66
26	I can identify possible indicators of mass exposure evidenced by clustering of patients with similar symptoms	3.09	1.32	66
33	As a nurse/midwife (registered or student), I would feel confident as a manager or coordinator of a shelter.	3.02	1.57	66
38	I feel reasonably confident can treat patients independently without supervision of a physician in a disaster situation	2.85	1.48	66
39	I am familiar with the organizational logistics and roles among local, state and federal agencies in disaster response situations	2.71	1.38	66
31	I feel confident discerning deviations in health assessments indicating potential exposure to biological agents	2.62	1.36	66
35	In case of a bioterrorism/biological attack, I know how to perform focused health history and assessment, specific to the bio agents that are used	2.46	1.30	66
30	I am familiar with the main Groups (A, B, C) of biological weapons (Anthrax, Plague, Botulism, Smallpox, etc.), their signs and symptoms and effective treatments	2.31	1.36	66

TABLE 3: EVALUATION AND RECOVERY

Question number	Question	Mean	SD	n
42	I would feel confident providing education on coping skills and training for patients who experience traumatic situations so they are able to manage themselves	3.5	1.32	66
43	I am able to discern the signs and symptoms of Acute Stress disorder and Post Traumatic Stress Syndrome (PTSD).	3.41	1.2	66
44	I am familiar with what the scope of my role as a nurse/midwife (registered or student) in a post-disaster situation would be	3.16	1.24	66
47	I feel confident managing (treating, evaluating) emotional outcomes for Acute Stress Disorder or PTSD following disaster or trauma in a multi-disciplinary way such as referrals, and follow-ups and I know what to expect in ensuing months	2.69	1.30	66
46	I am familiar with how to perform focused health assessment for PTSD	2.59	1.31	66
45	I participate in peer evaluation of skills on disaster preparedness and response	2.41	1.36	66

TABLE 4: CONNER DAVIDSON RESILIENCE SCALE

Question	Mean	SD	n
Adapt to change	3.03	0.85	66
Deal with whatever comes my way	3.14	0.65	66
See humorous side of things	3.18	0.74	66
Stress makes me stronger	2.55	0.88	66
Bounce back after illness or injury	3.02	0.75	66
Believe I can achieve goals despite obstacles	3.18	0.74	66
Under pressure I stay focused	3.00	0.82	66
Not easily discouraged by failure	2.45	0.89	66
Think of myself as a strong person when facing challenges	3.05	0.75	66
Able to handle unpleasant things	3.15	0.63	66

Highlights

- The level of disaster preparedness was examined in 66 student nurses
- A large proportion believed that education and knowledge was key to preparedness
- Student nurses believe they have a role to play, unsure of what that role may be

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Declaration of interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests: