<table>
<thead>
<tr>
<th>Please rate your level of competency according to the following scale</th>
<th>Please completely circle the item to indicate your response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1=I would need theory, demonstration and supervised practice</td>
<td>Scale for competency</td>
</tr>
<tr>
<td>2=I would need review and supervised practice</td>
<td>1= Not Competent</td>
</tr>
<tr>
<td>3=I would need some review and little supervision</td>
<td>2= Minimally Competent</td>
</tr>
<tr>
<td>4=I would need review only</td>
<td>3= Moderately Competent</td>
</tr>
<tr>
<td>5=I would need no review or supervision</td>
<td>4= Highly Competent</td>
</tr>
</tbody>
</table>

| 1. How competent are you in your role as a nurse in a mass casualty (MASCAL) situation? | Not Competent 1 2 3 4 5 Competent |
| 2. How competent are you to perform in emergency situations, such as those of patients in cardiac arrest? | Not Competent 1 2 3 4 5 Competent |
| 3. How competent are you taking care of life threatening injuries? | Not Competent 1 2 3 4 5 Competent |
| 4. How competent are you in providing nursing care to a multiple trauma patient? | Not Competent 1 2 3 4 5 Competent |
| 5. How competent are you in the care of patients with ballistic missile injuries? | Not Competent 1 2 3 4 5 Competent |
| 6. How competent are you in recognition of a patient with a tension pneumothorax? | Not Competent 1 2 3 4 5 Competent |
| 7. How competent are you in the fluid resuscitation of a burn patient? | Not Competent 1 2 3 4 5 Competent |
| 8. How competent are you in performing resuscitation with blood products? | Not Competent 1 2 3 4 5 Competent |
| 9. How competent are you with performing airway management? | Not Competent 1 2 3 4 5 Competent |
| 10. How competent are you in implementing the triage categories? | Not Competent 1 2 3 4 5 Competent |
| 11. How competent are you with evacuation of patients using aeromedical evacuation procedures? | Not Competent 1 2 3 4 5 Competent |
| 12. How competent are you in understanding the capacities of each Level of Care, formerly called Echelons of Care? | Not Competent 1 2 3 4 5 Competent |
| 13. How competent are you with knowing the Law of Armed Conflict (LOAC) violations that must be reported (i.e. ordered to protect patients with force)? | Not Competent 1 2 3 4 5 Competent |
| 14. How competent are you in setting up your area for Field Sanitation and Hygiene? | Not Competent 1 2 3 4 5 Competent |

--- Go to next page---
<table>
<thead>
<tr>
<th>Please rate your level of competency according to the following scale</th>
<th>Please completely circle the item to indicate your response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1= I would need theory, demonstration and supervised practice</td>
<td></td>
</tr>
<tr>
<td>2= I would need review and supervised practice</td>
<td></td>
</tr>
<tr>
<td>3= I would need some review and little supervision</td>
<td></td>
</tr>
<tr>
<td>4= I would need review only</td>
<td></td>
</tr>
<tr>
<td>5= I would need no review or supervision</td>
<td></td>
</tr>
<tr>
<td><strong>Scale for competency</strong></td>
<td></td>
</tr>
<tr>
<td>1= Not Competent</td>
<td></td>
</tr>
<tr>
<td>2= Minimally Competent</td>
<td></td>
</tr>
<tr>
<td>3= Moderately Competent</td>
<td></td>
</tr>
<tr>
<td>4= Highly Competent</td>
<td></td>
</tr>
<tr>
<td>5= Totally Competent</td>
<td></td>
</tr>
</tbody>
</table>

15. How competent are you with your ability to carry out Deployable Medical Systems DEPMEDS Setup (i.e. setting up tents and equipment)?

16. How competent are you in dealing with the unexpected (i.e. providing patient care in a bomb shelter if necessary)?

17. How competent are you with the nursing care required for patients injured by weapons of mass destruction (i.e. weapons used by terrorists)?

18. How competent are you with what is required of you to protect yourself and/or your patient(s) if called upon to do so?

19. How competent are you in your ability to perform nursing skills while in the M40 mask and MOPP gear?

20. How competent are you with decontamination procedures of a patient exposed to chemical or biologic agents?

21. How competent are you in your ability to perform your primary military specialty under adverse and/or prolonged field conditions (i.e. limited staff to provide relief)?

22. How competent are you in your ability to decontaminate yourself using standard personal decontamination equipment?

23. How competent are you in knowing your status under the Geneva Convention?

----- Go to next page-----
For the following, please indicate your level of agreement according to this scale by completely circling your response.

<table>
<thead>
<tr>
<th>Question</th>
<th>Scale for Level of Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>24. How competent are you with use of field communications equipment (i.e. field radio)?</td>
<td>Not Competent 1 2 3 4 5 Totally Competent</td>
</tr>
<tr>
<td>25. How competent are you with actions you must take during warning alarms?</td>
<td>Not Competent 1 2 3 4 5 Totally Competent</td>
</tr>
<tr>
<td>26. I have confidence that my support system (i.e. family, friends or family support group) will meet all of my psychosocial needs.</td>
<td>Totally Disagree 1 2 3 4 5 Agree</td>
</tr>
<tr>
<td>27. If I am deployed, I have confidence that my support system (i.e. family, friends or family support group) will maintain communication with me.</td>
<td>Totally Disagree 1 2 3 4 5 Agree</td>
</tr>
<tr>
<td>28. I am confident in my ability to manage stress related to my primary job.</td>
<td>Totally Disagree 1 2 3 4 5 Agree</td>
</tr>
<tr>
<td>29. I am confident in my ability to manage stress related to my family.</td>
<td>Totally Disagree 1 2 3 4 5 Agree</td>
</tr>
<tr>
<td>30. I am confident in my ability to manage stress related to my finances.</td>
<td>Totally Disagree 1 2 3 4 5 Agree</td>
</tr>
<tr>
<td>31. I am confident I will know how to access mental health services if needed while deployed.</td>
<td>Totally Disagree 1 2 3 4 5 Agree</td>
</tr>
<tr>
<td>32. I believe there is a real need for military rules and regulations to be adapted to the deployment setting.</td>
<td>Totally Disagree 1 2 3 4 5 Agree</td>
</tr>
<tr>
<td>33. I think it is possible for the staff to compensate for a commander who does not put into practice the leadership principle: &quot;Know your people and look out for their well-being&quot;.</td>
<td>Totally Disagree 1 2 3 4 5 Agree</td>
</tr>
<tr>
<td>34. I believe I could perform successfully in the deployed setting in the absence of realistic and relevant training.</td>
<td>Totally Disagree 1 2 3 4 5 Agree</td>
</tr>
<tr>
<td>35. I believe I will be provided with sufficient deployment training prior to deployment.</td>
<td>Totally Disagree 1 2 3 4 5 Agree</td>
</tr>
</tbody>
</table>

----- Go to next page -----

3
Readiness Estimate and Deployability Index
Revised for Air Force Nurses Short Form (R.E.A.D.I.-R-AFN [SF])

INSTRUCTIONS: Please carefully consider each item below.

<table>
<thead>
<tr>
<th>For the following, please indicate your level of agreement according to this scale By completely circling your response</th>
<th>Scale for Level of Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>36. If my deployment commander is unable to keep me informed of all pertinent information, I could still perform successfully.</td>
<td>Totally Disagree 1 2 3 4 5 Agree</td>
</tr>
<tr>
<td>37. I am prepared to deal with crowded, co-ed, and mixed ranks sleeping quarters while deployed.</td>
<td>Totally Disagree 1 2 3 4 5 Agree</td>
</tr>
<tr>
<td>38. Understanding my deployed unit’s mission, vision, and values is critical to my ability to perform successfully.</td>
<td>Totally Disagree 1 2 3 4 5 Agree</td>
</tr>
<tr>
<td>39. I am confident I will be able to function as a group leader in a deployed setting if needed.</td>
<td>Totally Disagree 1 2 3 4 5 Agree</td>
</tr>
<tr>
<td>40. It is critical for me to have a successful working relationship with members in my deployment unit.</td>
<td>Totally Disagree 1 2 3 4 5 Agree</td>
</tr>
</tbody>
</table>

----- Go to next page-----
Please place an [X] or fill in the blank in each item below to indicate your response.

Demographic Data
1. What is your current component? (Check one)
   [ ] Active Duty
   [ ] Air National Guard
   [ ] Air Force Reserve
   [ ] Other ____________________________

2. What is your primary AFSC? (Check one)
   [ ] 46A3 Nursing Administrator
   [ ] 46P3 Mental Health Nurse
   [ ] 46P3A Mental Health Nurse Specialist
   [ ] 46S3 Operating Room Nurse
   [ ] 46M3 Nurse Anesthetist
   [ ] 46N3 Clinical Nurse
   [ ] 46N3A OB/GYN Nurse Practitioner
   [ ] 46N3G Obstetrics Nurse
   [ ] 46G3 Nurse Midwife
   [ ] 46N3B Pediatric Nurse Practitioner
   [ ] 46N3C Primary Care Nurse Practitioner
   [ ] 46F3 Flight Nurse
   [ ] 46N3D Staff Development Officer
   [ ] 46N3E Critical Care Nurse
   [ ] 46N3F Neonatal ICU Clinical Nurse
   [ ] 46N3H Family Nurse Practitioner

3. How many years of nursing experience do you have (include military and RN or LPN civilian experience) [in years and months]?
   ____________________________

4. Do you have prior technical medical experience (i.e. medical technician)?
   [ ] yes  [ ] no

5. Are you male or female?
   [ ] Male  [ ] Female

6. What is your military rank?
   [ ] 01 2nd Lieutenant
   [ ] 02 1st Lieutenant
   [ ] 03 Captain
   [ ] 04 Major
   [ ] 05 Lieutenant Colonel
   [ ] 06 Colonel

   ---- Go to next page ----
Please place an [X] or fill in the blank in each item below to indicate your response

7. What is your highest education level?
   [ ] Bachelors in Nursing
   [ ] Bachelors other than nursing
   [ ] Masters in Nursing
   [ ] Masters other than nursing
   [ ] Doctorate in Nursing
   [ ] Doctorate other than nursing

8. When was the last time you provided direct patient care? (Check one)
   [ ] More than 4 years ago
   [ ] Within the most recent 1-4 years
   [ ] Within the last year, but more than 6 months ago
   [ ] Within the last 6 months

9. What type(s) of triage experiences and education have you had? (Check all that apply)
   [ ] I have not learned about triage yet
   [ ] Learned through military or civilian courses
   [ ] Learned through inservices, nursing courses, journals, handouts, etc.
   [ ] Practiced triage in an Emergency Department setting
   [ ] Practiced triage in a field environment on real and/or moulaged patients

10. Are you currently assigned to a mobility platform (i.e. Unit Type Code (UTC) such as Expeditionary Medical Support/Air Force Theater Hospital (AFTH) or Aeromedical Evacuation?
    [ ] yes  [ ] no

11. What is your deployment status?
    [ ] I am deployed.
    [ ] I am not deployed but will deploy within 90 days.
    [ ] I am not assigned to a deployment platform

12. Have you ever deployed? (If No, proceed to question 16)
    [ ] Yes[ ] No

13. How many times have you deployed? ______________________

14. What was the length of your deployment (longest, if more than one)?
    [ ] 2 weeks  [ ] 90 days
    [ ] 30 days  [ ] 120 days
    [ ] 60 days  [ ] 179 days

---- Go to next page----
Please place an [X] or fill in the blank in each item below to indicate your response

15. What were the dates of your most recent deployment (months and year)?
   From ________________ To ________________

16. What is your age? (fill in blank) ______

17. How frequently do you exercise?
   [ ] at least 3-5 times a week
   [ ] twice a week
   [ ] once a week
   [ ] less often than once a week

18. Check the box that represents how long ago it was that you had a physical exam.
   [ ] 1-12 months Ago
   [ ] 1-5 years ago
   [ ] longer than five years ago

19. Are you up to date on routine gender specific (i.e. mammogram for women/prostate for men),
    health related exams?
   [ ] Yes [ ] No [ ] not sure

20. If indicated, do you have a family care plan to make arrangements for your children (required
    for single parents or if both parents are military)?
   [ ] Yes [ ] No [ ] Not Applicable

21. If single, do you have a support plan for your pets, finances or elder dependents?
   [ ] Yes [ ] No [ ] Not Applicable

22. Which of the following would you use to help you in coping with stress?
    (Check ALL that apply)
    [ ] Tobacco [ ] Alcohol
    [ ] Physical Exercise [ ] Reading
    [ ] Relaxation/Meditation Techniques [ ] Music
    [ ] Talking with Friends [ ] Religious Faith
    [ ] Eating [ ] Sleeping
    [ ] Other________________

You have completed the questionnaire. Thank you so much for taking part in this study and assisting us with the development of this instrument.
The Readiness Estimate and Deployability Index Revised For Air Force Nurses

Short Form (READI-R-AFN [SF])

Theresa L. Dremsa, LtCol, USAF, NC, PhD
59 CRES/MSRN
Director, Nursing Research
1255 Wilford Hall Loop, Bldg 4430
Lackland AFB, TX 78236
210-292-6095
FAX 210-292-6053

tdremsa@satx.rr.com / theresa.dremsa@lackland.af.mil

A standard test development strategy based on Classical Test Theory was used to evaluate the psychometric properties of the Readiness Estimate and Deployability Index
Revised For Air Force Nurses Short Form (READI-R-AFN [SF]), an instrument to measure members' perceived state of preparedness for military deployments.

The READI-R-AFN [SF] was initially derived from Reineck's (1996,1998) work with the Readiness Estimate and Deployability Index (READI). Since a theoretical foundation was not in existence to outline or define the concept of readiness and delineate how it would be measured, Reineck, an Army nurse (1996) pursued concept clarification through focus group techniques for initial development of the READI. Her work defined the concept of readiness and delineated how it would be measured. Focus group members were active duty and reserve Army nurses who were representative of a wide array of grade in service, military deployment experience, nursing specialties and geographic assignment. Members clarified their ideas regarding medical readiness, and made recommendations specifying how all concepts related to medical readiness fit together.

As a result of ideas generated through focus group techniques, a definition Individual Medical Readiness (IMR) was derived as, "... a dynamic concept with dimensions at the individual, group, and system levels which, together, influence one's ability to prepare to accomplish the mission" (Reineck, 1996, p. 23). In addition, recurring themes emerged identifying six interrelated dimensions of Individual Medical Readiness and their corresponding ideas (Reineck, 1998; 1999). The six inter-related dimensions were: (a) Clinical Nursing Competency, (b) Operational Competency, (c) Soldier/Survival Skills, (d) Personal/ Psycho-social/ Physical Readiness, (e) Leadership and Administrative Support, and (f) Group Integration and Identification.
Revised For Air Force Nurses Short Form (READI-R-AFN [SF]), an instrument to measure members’ perceived state of preparedness for military deployments.

The READI-R-AFN [SF] was initially derived from Reineck’s (1996,1998) work with the Readiness Estimate and Deployability Index (READI). Since a theoretical foundation was not in existence to outline or define the concept of readiness and delineate how it would be measured, Reineck, an Army nurse (1996) pursued concept clarification through focus group techniques for initial development of the READI. Her work defined the concept of readiness and delineated how it would be measured. Focus group members were active duty and reserve Army nurses who were representative of a wide array of grade in service, military deployment experience, nursing specialties and geographic assignment. Members clarified their ideas regarding medical readiness, and made recommendations specifying how all concepts related to medical readiness fit together.

As a result of ideas generated through focus group techniques, a definition Individual Medical Readiness (IMR) was derived as, “... a dynamic concept with dimensions at the individual, group, and system levels which, together, influence one’s ability to prepare to accomplish the mission” (Reineck, 1996, p. 23). In addition, recurring themes emerged identifying six interrelated dimensions of Individual Medical Readiness and their corresponding ideas (Reineck, 1998; 1999). The six inter-related dimensions were: (a) Clinical Nursing Competency, (b) Operational Competency, (c) Soldier/Survival Skills, (d) Personal/psycho-social/Physical Readiness, (e) Leadership and Administrative Support, and (f) Group Integration and Identification.
The original number of items representing each dimension, which were restructured for the READI-R-AFN short form (Drema-Collins, 2001). Specific subsections were revised with the assistance of nurses experienced in Air Force deployment missions. Items in several dimensions were expanded and standardized for uniformity as part of the ongoing development process of the READI-R-AFN. The ongoing development process was conducted in three phases, Phase I the Pilot Study, Phase II, the Field Study, and Phase III, Sensitivity to an Intervention.

Phase I - Pilot Study

In the pilot study, 181 of 350 active duty Air Force nurses (52% response rate) completed questionnaires. The READI-R-AFN was refined based on preliminary item analysis, internal consistency (alpha coefficient > 0.70), test-retest reliability and structural equation modeling (SEM). Confirmatory factor analysis confirmed the hypothesized nature of the construct using Flannery’s (1994) model of Stress Resistant Persons.

Phase II – Field Study

Significant items of the 83-item READI-R-AFN were retained for the shorter 40-item form of the READI-R-AFN [SF], subsequently tested for reliability and validity in another convenience sample of 500 active duty AF nurses with 205 nurses responding (41% response rate). Six dimensions of Individual Readiness (IR) were confirmed in both samples of active duty AF nurses.

Phase III – Sensitivity to an Intervention

The purpose of the Phase III was to evaluate the changes in test scores of the READI-R-AFN [SF] before and after attendance in courses designed to prepare nurses in
specific areas of medical readiness. The READI-R-AFN [SF] was introduced into a planned field evaluation consisting of two groups of nurses (EMEDS and CCATT courses) to evaluate the instrument’s sensitivity to an intervention. Since participation in courses designed to prepare individuals in readiness skills is anticipated to increase readiness preparation, evaluation of sensitivity to an intervention would contribute to construct validation of this instrument (READI-R-AFN [SF]). Thirty-four (N = 34) nurses in the CCATT group per group and thirty-two (N = 32) nurses in the EMEDS group provided complete data for analysis. The READI-R-AFN [SF] was introduced at baseline (on the first day of the course), and following intervention (on the last day of the course).

All subscales, except the Personal/Physical/Psychological (PPP) [both groups] and the Group Identification and Integration (GII) subscale [CCATT group] showed a significant difference in change scores. The PPP subscale is representative of personal measures an individual must address prior to deployment, so would therefore not be expected to change as a result of training for critical care transport as is accomplished in the CCATT course or in training to set up a Field Hospital and care for patients as is accomplished in the EMEDS course. The GII subscale reflects how well group members interrelate and since physicians, nurses and technicians participate in the training in the CCATT course, the group may not identify as a group. Years of nursing experience negatively correlated with the Personal/psychological/physical (PPP) and the Group Integration (GII) Change scores in the CCATT group only PPP and GII. It is possible that those with more years of nursing experience function more independently and do not identify with the group as well. In addition, questions in the PPP scale address having
confidence psychological support will be provided through family and mental health services as well as managing stress related to finances and job. Individuals with more years of nursing experience may not agree they need to rely on others for this support.

Conclusions

The READI-R-AFN [SF] is a reliable and valid instrument and is sensitive to an intervention in two different groups of nurses preparing for deployment. Results show significant change scores in the subscales that specifically relate to training for deployment. The instrument can be used to efficiently identify the degree to which nurses believe they are prepared for the expectations of short-notice readiness missions.

While the primary purpose of this study was to test the reliability and validity of READI-R-AFN [SF], it also included the application of Flannery's (1994) concepts to facilitate preparation of active duty Air Force nurses for military deployment missions. Fostering the development of the stress resistant nurse corps officer would identify nurses who would be more likely to take action to fulfill the course requirements and specifications detailed by the Air Force to prepare themselves for the deployment mission. The READI-R-AFN [SF] is a valid and reliable self-assessment measure of Air Force nurses of their readiness for deployments and can serve as a diagnostic tool that can be used to pinpoint specific areas where deployment preparation is needed. Sustaining medical support for military deployment missions requires timely and accurate information necessary for rapid mobilization and strategic deployment of personnel (Department of Defense, 1998).
References


