

# the Readiness Estimate and Deployability Index(READI) to Measure Nurse Preparedness for Disasters and Conflicts

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## READI Instrument Development Background

○Assesses readiness to perform nursing care in austere environments.

○Measures 6 conceptual dimensions of readiness

○Developed and field tested in the USA 1998-2007

○Gained international exposure 2004-2015 in Canada, Republic of Korea(ROK), and Japan

2008: Translated into Korean; Assess ROK Armed Forces Nursing Academy(AFNA) cadets' readiness upon graduation

2009: ROK Army Nurse Corps' readiness

2014: Translated into Japanese; Assess Japanese nurses who had been dispatched for the Great East Japan Earthquake relief activities in 2011.

○Versions and articles available at [tps://nursing.uthscsa.edu/ONRS/Resources/READI/index.aspx](https://nursing.uthscsa.edu/ONRS/Resources/READI/index.aspx)

○USA Funding: Tri-Service Nursing Research Program & H.M. Jackson Foundation

## Results of Individual Studies (Blue:U.S.A., Red: R.O.K., Green:Japan)

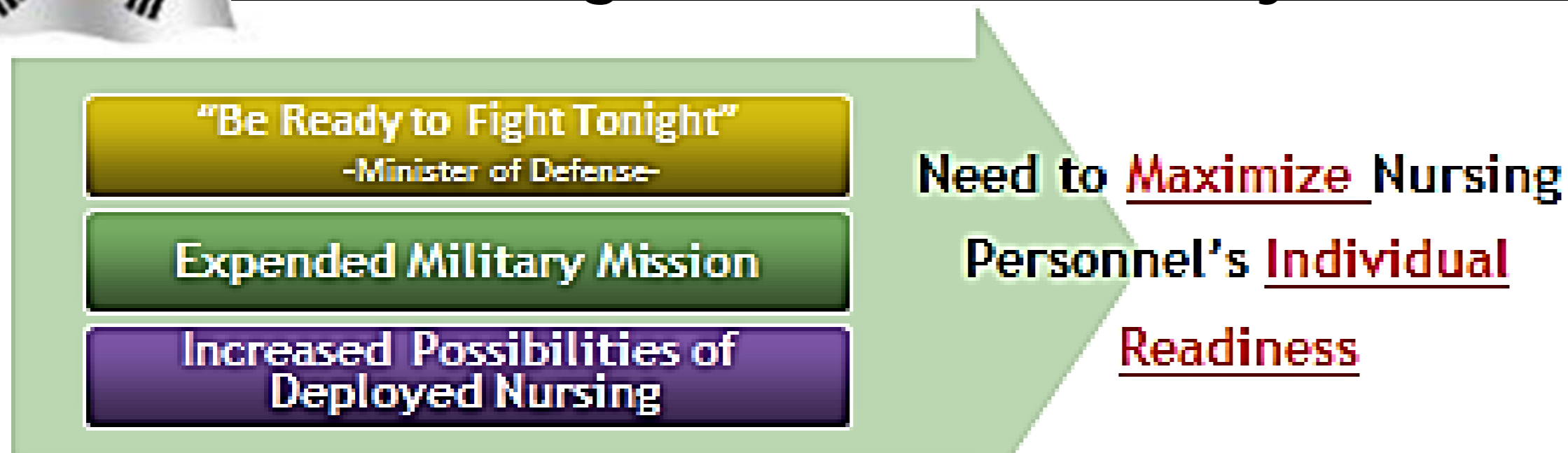
	Wilmoth, M. et al. (2007)	Stevenson, M. et al. (2007)	Rivers, F. et al. (2006)	Dremsa, T. et al. (2004)	Ann, E. et al. (2009)	Ann, E (2008)	T. Maeda, N. Matsuda (2014)
Sample Size	N=92	N=63	N=131	N=181	N=565	N=93	N=742
Response Rate	26%	60%	39%	52%	88%	100%	61.6%
Clinical Competency	2.93 – 3.85	4.38	1.00 – 3.68	2.0 – 4.4	3.5	3.4	3.30
Operational Competency	3.09 – 3.67	3.73	1.03 – 4.20	2.7 – 4.1	3.6	3.4	3.94
Survival Skills	3.66 – 4.05	3.93	2.25 – 4.58	2.7 – 3.6	3.2	3.5	1.94
Personal, Psych, Physical	Not reported	4.62	1.0 – 5.0	3.5 – 4.8	2.7	3.6	3.43
Leadership & Admin	Not reported	3.78	1.4 – 5.0	4.5 – 4.8	2.9	3.4	3.94
Group Integration	Not reported	4.01	2.6 – 4.6	3.2 – 4.7	3.8	3.9	4.12
Cronbach's alpha	.27-.97	Not reported	Not reported	.80 - .96	.78-.93	.80-.93	.45-.96
Test-retest Pearson's r	Not reported	Not reported	.24 – 1.0	Not reported	Not reported	Not reported	Not reported



## Introducing READI to ROK Army Nurse Corps



## Comparison of Reliability before and after factor analysis



Modeling	Six Items	Cronbach's alpha
Mastery	① Clinical Competency (CC)	0.96
	② Operational Competency (OC)	0.77
	③ Survival Skills (CC)	0.83
*Attachment	④ Personal, Psych, Physical (PPP)	0.74
	⑤ Leadership & Admin (L&A)	0.62
	⑥ Group Integration (GI)	0.45

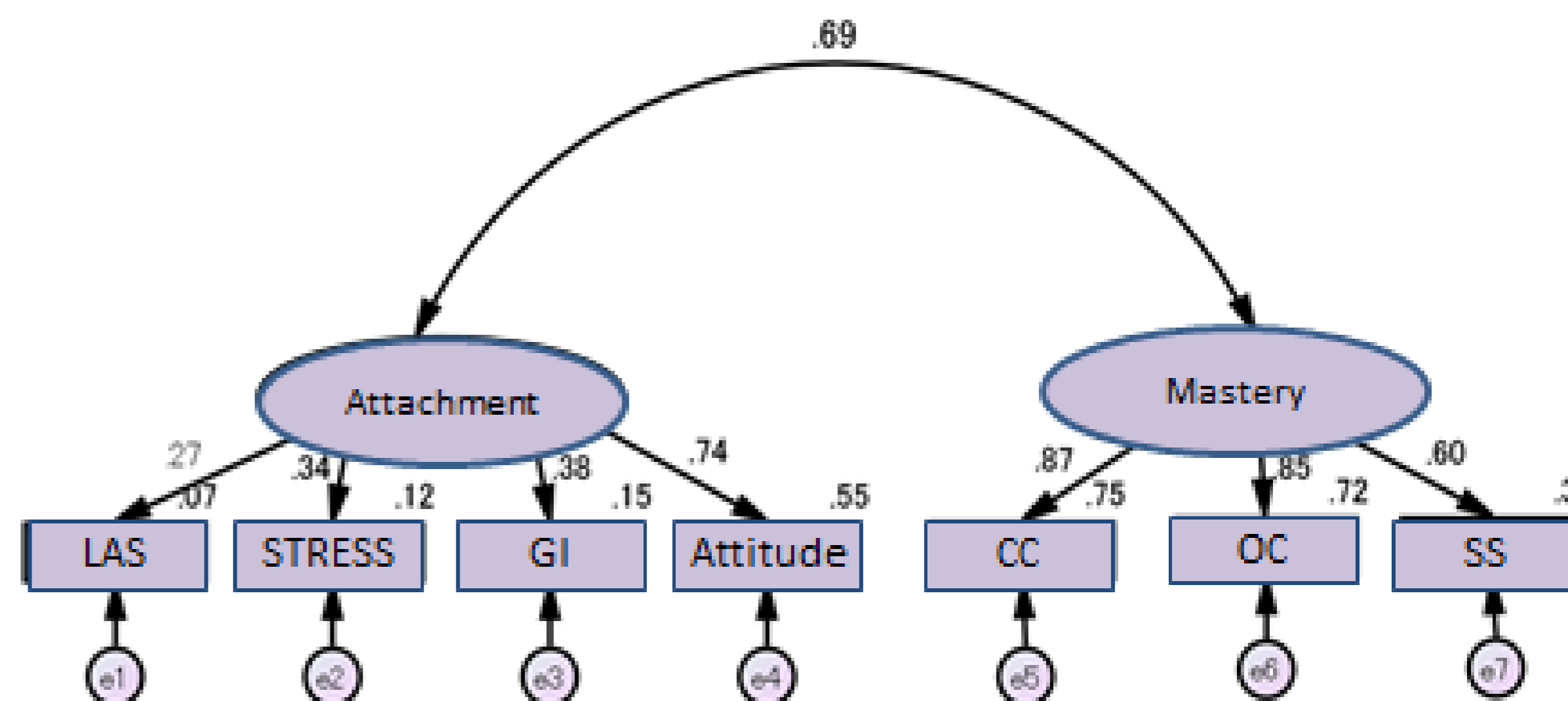
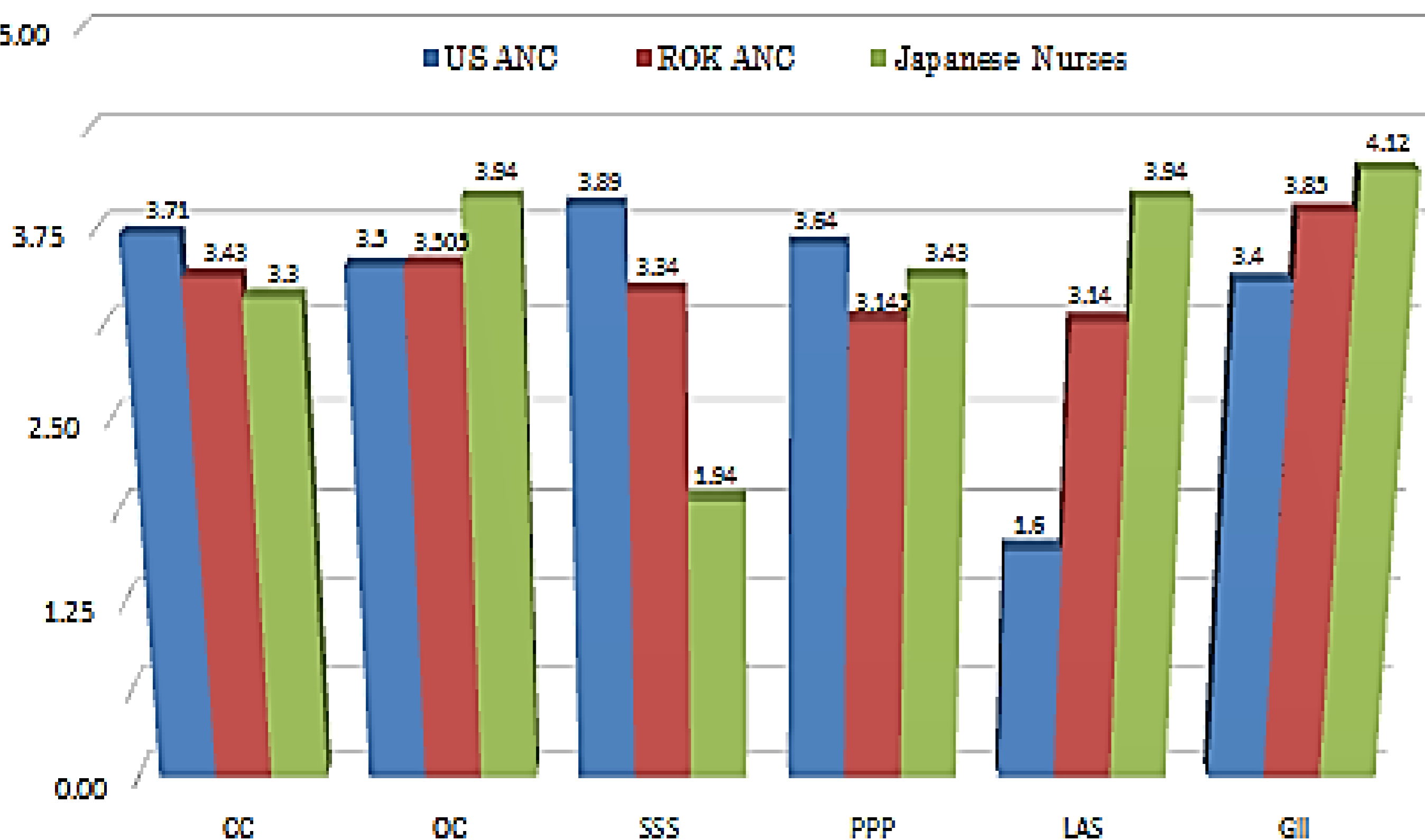
Modeling	Seven Items	Cronbach's alpha
Mastery	① Clinical Competency (CC)	0.96
	② Operational Competency (OC)	0.77
	③ Survival Skills (CC)	0.83
*Attachment	④ Stress Coping	0.70
	⑤ Attitude of Mind	0.84
	⑥ Leadership & Admin(L&A)	0.70
	⑦ Group Integration (GI)	0.87

- Translating(**forward only with testing**) and Developing READI-K version(2007)
  - Validating translation : 3 Korean nursing professors who completed their graduate programs in U.S.A and I English-major Korean PhD student verified the translation.
  - Content Validity Index(CVI) was done with 9 Army Nurse professionals
  - Pilot study with 49 army nurse officers showed stable psychometric property of READI-K (Chronbach's alpha : .82 - .94)
- Field Apply of READI-K
  - In 2008, the Korean Armed Forces Nursing Academy Cadets' Readiness was assessed.
  - In 2009, the ROK army nurse officers' total force readiness was assessed.

## Comparison of Each Nation's Study Results



## Results of the confirmatory factor analysis for seven domains



Chi-square Value=21.351  
P Value=0.006  
GFI(Goodness of Fit Index)=0.986  
CFI(Comparative Fit Index)=0.988  
AGFI(Adjusted Goodness of Fit Index)=0.969  
RMSEA(Root Mean Square Error of Approximation)=0.039

## Conclusion & Recommendation



- READI introduces you what kind of competencies are required for nurses in austere environment.
- READI can assess you & your organizations' nursing readiness to respond disaster situation.
- READI is also available for Civilian nurses.
- So far, READI is available in 3 languages. Recommend to expand this tool to your own language.

## References

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