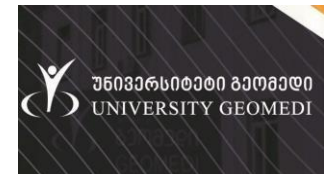


# The role of Science and its practical value in Military Mental Health

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## Georgian - Russian war 2008

128, 000 more ethnic Georgians were forced to leave their homes and became refugees.

- 150,000 Georgians became victim to violence and ethnic cleansing as the Russian air jets bombed civilians, burned their homes, destroyed villages, took them hostage and kept them in captivity.





Creeping occupation still continue . . .

More than 100 villages have been occupied by Russia since the 2008 war.

## History of Forming Military Mental health

- 2013 – Program Development, presentation and
- 2014 March- Psychological Monitoring and Evaluation Division.  
General
- 2014 October- Psychological Selection and Monitoring department.  
General Staff, Georgian Military forces.
- 2014 –Psychological Monitoring and Management Software
- 2014 - Collaborative research with Ministry of Defence of Netherlands and  
Leiden University Medical Center (LUMC).





These services was  
developed  
with the support of Dutch

## Main Hypothesis

- International experience shows high comorbidity of PTSD, depression, anxiety and somatic complaints.
- Co-existence of PTSD and somatic complaints is especially interesting.
- Different study shows a significant role in depression and anxiety as a mediating factor in this relation

## Main Aims of Research

- The possibilities of international instruments for mental assessment, their adaptation and implementation in
- Creation and development of appropriate health care services



## In Case of lack of Complex Treatment

- High comorbidity of high chronization
- High risk of developing secondary mental problems such as addictions, behavior problems
- Decrease in General and mental well being
- Risk of decreasing fighting of work abilities.

## Research Data and Methods

### Participants:

- 2014-2015 Participant in International missions
- Total Participants: -2799 Military

## Research Instruments:

- Post-Traumatic Stress Disorder Questionnaire (PTSD Checklist for DSM -5) PCL -5
- The Patient Health Questionnaire – PHQ

Depression Subscale PHQ-9

Anxiety Subscale - GAD-7

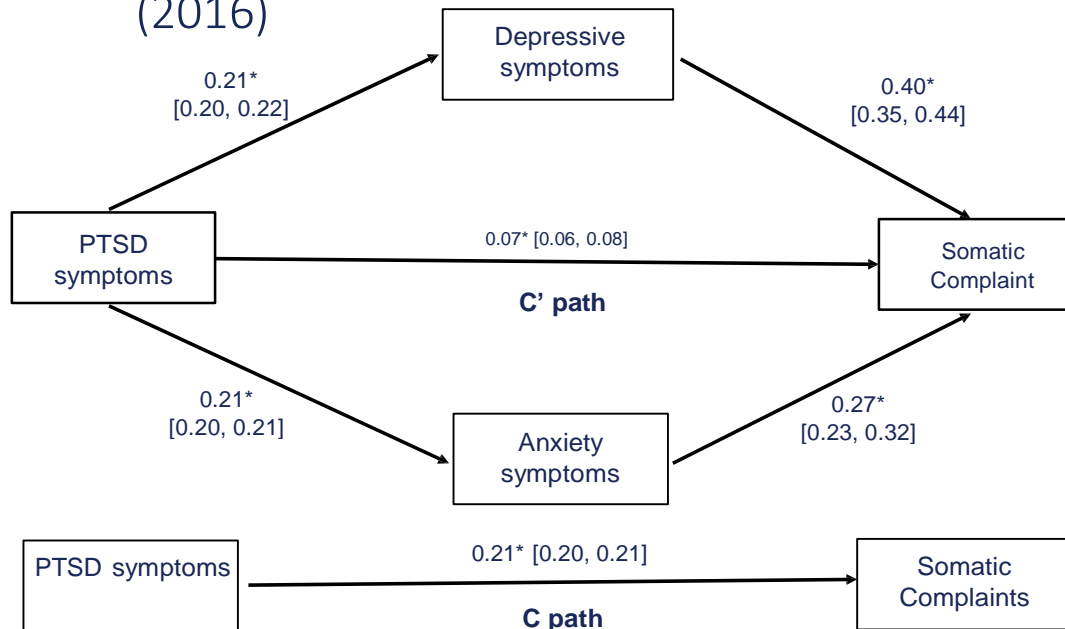
Somatic Complaint Subscale - PHQ -15

## Statistical Analysis:

- Correlational analysis – Spearman, Pearson, Kendall Tau
- Regression analysis – Linear regression, Bivariate regression
- Mediation analysis (SPSS Macro by Hayes 2016)
- Statistical analysis was made by support of Leiden University professor of statistics

## Mediation Analysis by (2016)

**Figure 1.**



**Figure 1.** Association between posttraumatic stress disorder (PTSD) and somatic complaints, and the mediating effects of depression and anxiety. Unstandardized path coefficients marked with an asterisk identify 95% bootstrap confidence intervals which do not include zero and significant level ( $p < .001$ ). The total indirect effect of PTSD on somatic complaints: 0.14, 95% CI [0.12, 0.16].

## Adaptation and

- Questionnaire adaptation was done according to international standards.
- Translation- back translation, Psychometric data, Internal consistency
- PCL -5 Cronbach's  $\alpha = .92$
- Depression scale Cronbach's  $\alpha = 0.83$
- Anxiety scale: Cronbach's  $\alpha = .83$
- Somatic complaints scale: Cronbach's  $\alpha = .82$



## Conclusions:

- Modern international instruments for assessment of depression, anxiety, PTSD and somatic complaints are adapted and valid. It is proven with
- The following questionnaires increase the probability to reveal comorbid mental health problems.
- The Importance of examination people who were under stressful situations is proven with research.

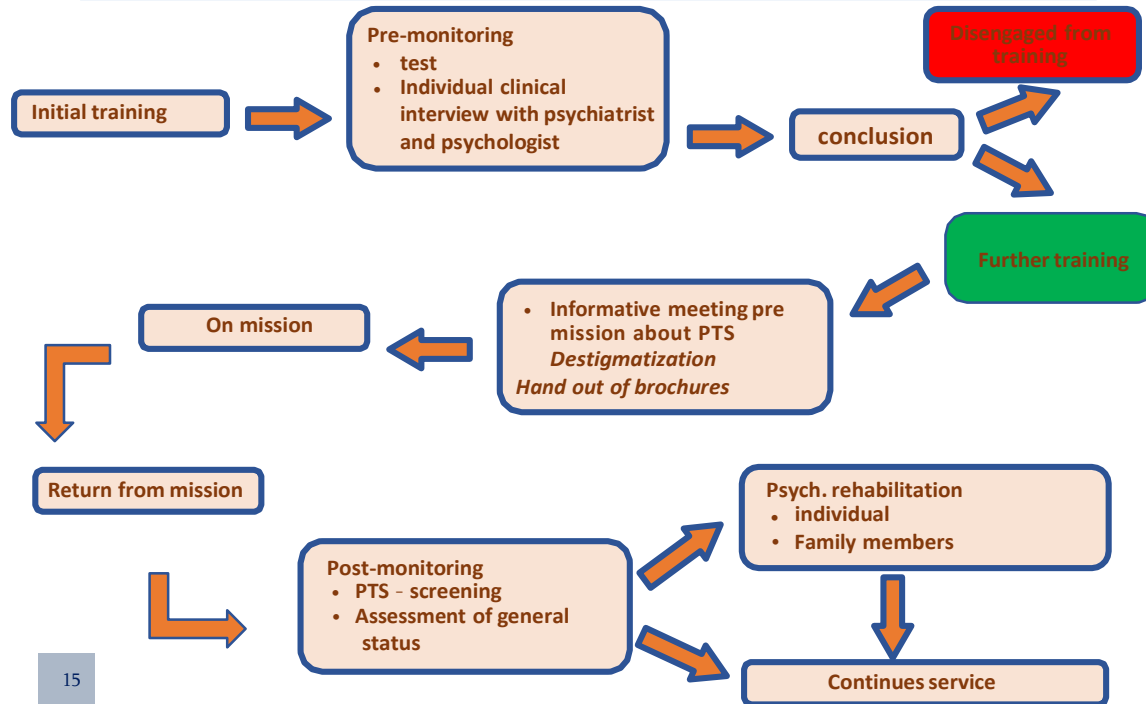
## Recommendations:

1. During evaluation, when PTSD patient has somatic complaints present, it is desirable to pay attention their comorbid phenomenon.
2. Clinical questionnaires for mental health evaluation should be installed in healthcare clinics and be considered in guidelines/Protocols.
3. When treating PTSD patients it is recommended to be considered comorbid problems, as well as depression, anxiety and somatic
4. Research results should be used in a study programs at different level of education in order to strengthen practical values.

## Research Results and Practical Recommendation

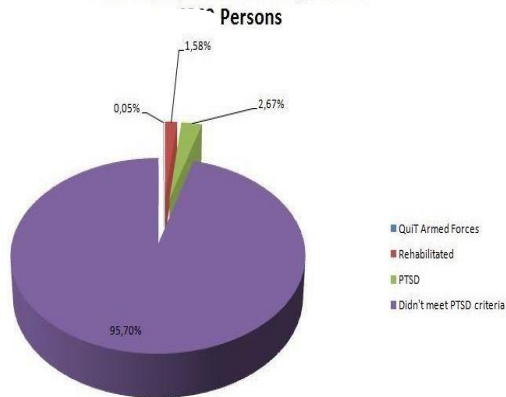
- 2014 Military Mental Health Services implementation/improvement
- 2015 Psychological recruitment System implementation
- 2015 Started Suicide Prevention Program

## Psychological monitoring of deployed service members

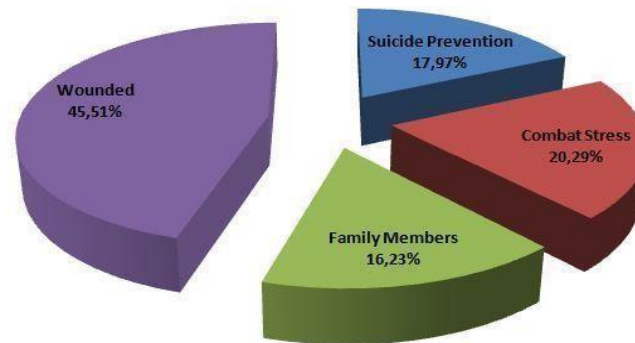


# Psychological rehabilitation

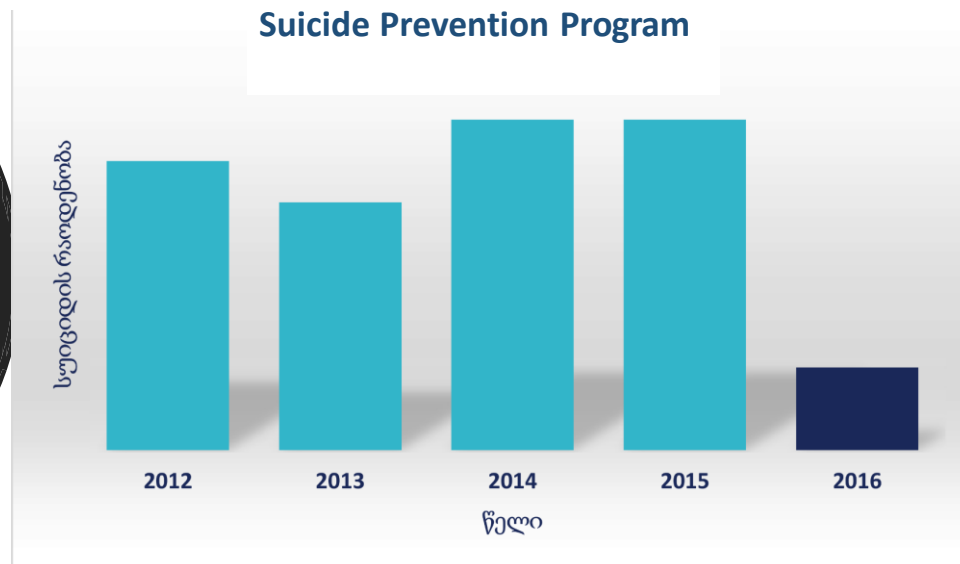
Post-deployment Screening Results



Psychorehabilitation  
345 Persons



Suicide facts were  
67-75% decreased,  
with the  
comparison 2012-  
2015 records





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Our software secures nomination “The Most Successful IT Innovation which resulted in streamlining of a business process "in the international competition by The ICT Business Council of Georgia



## Publications:

- 2016 started Publishing scientific articles
- 2017 was published main article in high impact factor international scientific journal

“Posttraumatic Stress Disorder and Somatic Complaints in a Deployed Cohort of Georgian Military Personnel: Mediating Effect of Depression and Anxiety” -  
JOURNAL OF TRAUMATIC STRESS (JOTS) 2017

Journal of **TRAUMATIC STRESS** ISTSS International Society for Traumatic Stress Studies

PUBLISHED BY THE INTERNATIONAL SOCIETY FOR TRAUMATIC STRESS STUDIES

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Research Article

## Posttraumatic Stress Disorder and Somatic Complaints in a Deployed Cohort of Georgian Military Personnel: Mediating Effect of Depression and Anxiety

Giorgi Sikharulidze , Nan van Geloven, Estate Lelashvili, Giorgi Kalandarishvili, Nino Gugushvili, Eric Vermetten

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