

The Dissemination of Military Suicide Research Understood through Altmetrics

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INTRODUCTION

- The increase of military suicides has been prevalent in the media since it was first reported that they surpassed civilian rates in 2008.
- While researchers have provided recommendations on how the military and Veteran organizations can move forward in addressing suicide in the military, little is known about whether that information is being received and implemented.
- Social media outlets provide invaluable tools to inform policy makers, researchers, clinicians, commanders and the community at large, including the military service men and women and Veterans we seek to support.
- Altmetrics, created from the idea of “alternative metrics”, builds on information from social media and serves as a formal tracking system that captures both scholarly influence and informal communications.
- Altmetrics provide a more thorough picture on the impact of scholarly work beyond researchers to diverse audiences such as clinicians, practitioners and the general public (Priem et al., 2012).

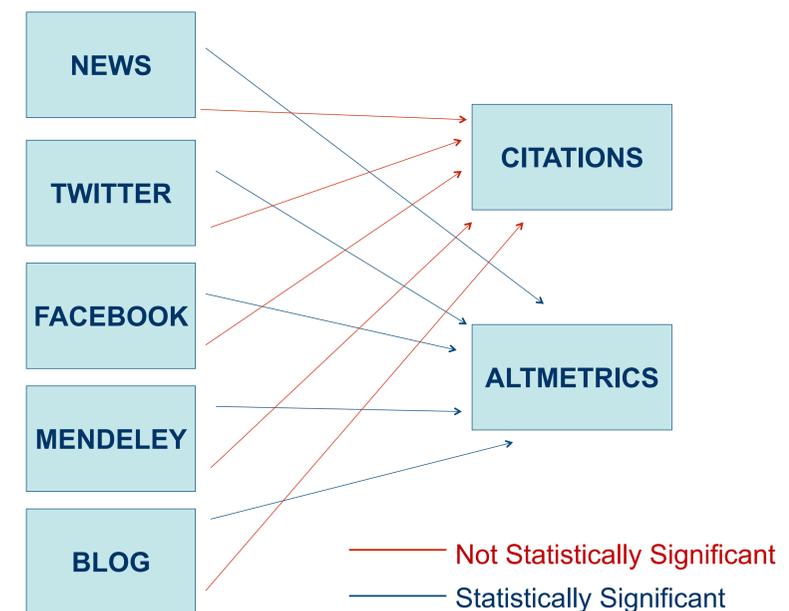
METHODS

- An article list of “military” and “suicide” research was captured on July 1, 2014 through Web of Science, the gold standard for research discovery and analytics.
- An initial 334 articles were filtered from this search with a start date of January 2006. The authors chose 2006 as the beginning year as that is when both Facebook went public and Twitter launched, key components of Altmetrics.
- After a review of the abstracts by two authors determining relevance, a total of 207 articles were included in this study. Altmetric total scores and variable scores, along with the number of citations for each article, were recorded every third month and will continue to be recorded for one year.
- A path analysis was created using the Altmetric factors as exogenous variables and Altmetric total score and number of citations as endogenous variables.

RESULTS

- Descriptive statistics:
 - Number of total citations ranged from 0 to 135
 - Mean = 7.22, SD = 13.32
 - Total Altmetric scores ranged from 0 to 321
 - Mean = 5.26, SD = 24.15
 - 2013 journal impact factors ranged from 0.38 to 30.39
 - Mean = 3.03, SD = 3.13
- The path analysis approach indicated the extent to which a traditional indicator of research impact, article citations, captures the spread of research on social media relative to how these factors are represented by an Altmetric score.
 - None of the Altmetric factors had significantly predicted the Web of Science number of citations.
 - The results capture the proliferation of research above and beyond what is captured by the number of citations.
 - This approach indicates the extent to which a traditional indicator of research impact, through article citations, can be enhanced by capturing the spread of research on social media and other academic resources such as Mendeley, represented by an Altmetric score.

RESULTS



Significance of Altmetric Factors in a Path Analysis to the Sum of Article Citations and Total Altmetric Score

		Unstandardized Estimate	Standardized Estimate	p-value
Sum of Citations	News	-.333	-.052	.599
Altmetric Score	News	8.344	.726	<.001
Sum of Citations	Twitter	-.176	-.102	.347
Altmetric Score	Twitter	.675	.216	<.001
Sum of Citations	Facebook	.026	.003	.974
Altmetric Score	Facebook	.457	.033	<.001
Sum of Citations	Mendeley	.196	.118	.127
Altmetric Score	Mendeley	.023	.008	.004
Sum of Citations	Blogs	5.292	.157	.120
Altmetric Score	Blogs	8.750	.143	<.001

CONCLUSION

- Referencing the number of article citations offers very limited insight on the impact of scientific research.
- By understanding the mechanisms and use of Altmetrics, researchers can have a larger impact on the dissemination and implementation of their findings.
- Given the importance and sensitive nature of military suicide research, all avenues in which evidence-based research can disseminated and implemented should be exhausted.
- These efforts can be tracked through Altmetrics to determine the research that is of interest to researchers, clinicians, military and the community at large.
- The use of Altmetrics as a reference will assist researchers in knowing what questions are not only important to the scientific community but of interest to those directly affected by suicide.

References

- Priem, J., Piwowar, H. A., & Hemminger, B. M. (2012). Altmetrics in the wild: Using social media to explore scholarly impact. *arXiv preprint arXiv:1203.4745*