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**Abstract**

# Acceptability and Short-Term Outcomes Associated With Use of a Prescription Drug Abuse Education Mobile App in a Military Sample

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**Abstract**

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**Background:** Prescription drug misuse and abuse are serious issues affecting the nation, and military personnel have not been exempt from this problem. However, standards for military personnel in this area are more stringent than those for civilians, and the stakes of even unintentional misuse are higher. For these reasons, it is essential to educate service members about prescription drug misuse and abuse, using a variety of novel approaches.

**Objective:** The objective of this study was to evaluate the acceptability of an educational app and its impact on prescription medication misuse risks among active-duty service members who were currently taking a prescription medication with the potential for misuse.

**Methods:** A randomized controlled trial was conducted to pilot test the app among 80 service members. Participants were randomized to either the app along with treatment as usual (TAU) or just to continue with TAU. Self-report data, collected at pretest and 1-month posttest, included risk of prescription drug misuse, preparedness to talk about prescription drug misuse, knowledge, attitudes, perceived harm, behavioral intentions, medication use, pain, and mental well-being, using a combination of standardized scales and investigator-developed items. In addition, ratings of the app were collected from those in the intervention condition.

**Results:** Preparedness to talk to doctors or leadership about a personal concern related to one's own possible prescription drug misuse increased significantly from pretest to posttest ( $P=.02$ ). Participants in the intervention condition significantly increased their communication preparedness about a personal concern ( $P=.01$ ), while those in the TAU condition showed no change ( $P>.05$ ). In addition, there was a marginally significant interaction between group and time on preparedness to talk to others about their possible misuse ( $P<.06$ ). No other significant group-by-time interactions were observed for the other outcomes measured. Participants found the app useful (mean 3.85), and agreed that they learned new information (mean 3.97), that the app was appropriate for military service members (mean 3.97), and that they would recommend it to fellow service members (mean 3.86; rating scale 1=strongly disagree to 5=strongly agree).

**Conclusions:** The finding that patients using the app felt more prepared to talk to their chain of command or doctor about possible personal prescription drug misuse suggests that the app enhanced their comfort in communicating about prescription drug misuse. One of the goals of the scenarios in the app was to help participants walk through how they would handle a variety of situations related to communicating about prescription drug misuse. Among military personnel, talking to leadership about sensitive issues is often intimidating and uncomfortable, particularly about issues that involve one's own risk, making this shift a rather promising finding. Despite some limitations, and a lack of significant findings among the study's other measures, use of this mobile health tool was associated with a shift toward reducing prescription drug misuse risk in the area of communication, suggesting that it constitutes a valuable addition to the arsenal of multifaceted efforts to decrease prescription drug misuse.

(*iproc* 2019;5(1):e15005) doi: [10.2196/15005](https://doi.org/10.2196/15005)

## KEYWORDS

app; military personnel; patient education; prescription drug misuse

## Multimedia Appendix 1

Poster.

[\[PDF File \(Adobe PDF File\) 4 MB-Multimedia Appendix 1\]](#)

*Edited by R Palacholla; this is a non-peer-reviewed article. Submitted 19.06.19; accepted 14.08.19; published 02.10.19.*

*Please cite as:*

*Hurtado S, Simon-Arndt C, Dell'Acqua R*

*Acceptability and Short-Term Outcomes Associated With Use of a Prescription Drug Abuse Education Mobile App in a Military Sample*

*iproc* 2019;5(1):e15005

URL: <https://www.iproc.org/2019/1/e15005>

doi: [10.2196/15005](https://doi.org/10.2196/15005)

PMID:

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