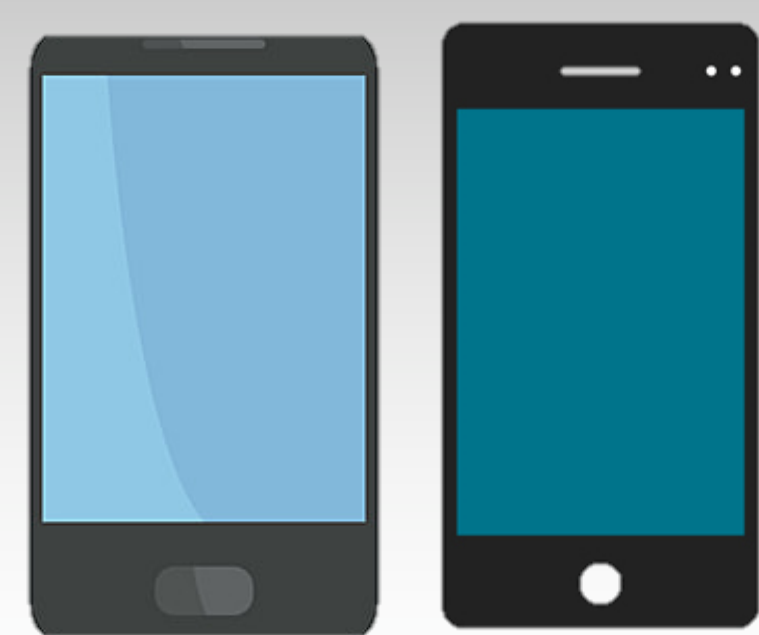




Systemic challenges in tele-health and structural solutions to enhance access



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INTRODUCTION

- Smartphone-based mobile apps have become increasingly prevalent over the last decade. A 2015 World Health Organization (WHO) survey of 15,000 mobile Health apps revealed there to be a 29% focus on mental health diagnosis, treatment, or support.
- There is an evidence gap in the literature between publications and company products and reports suggest >20% of young adults suffering from smartphone addiction

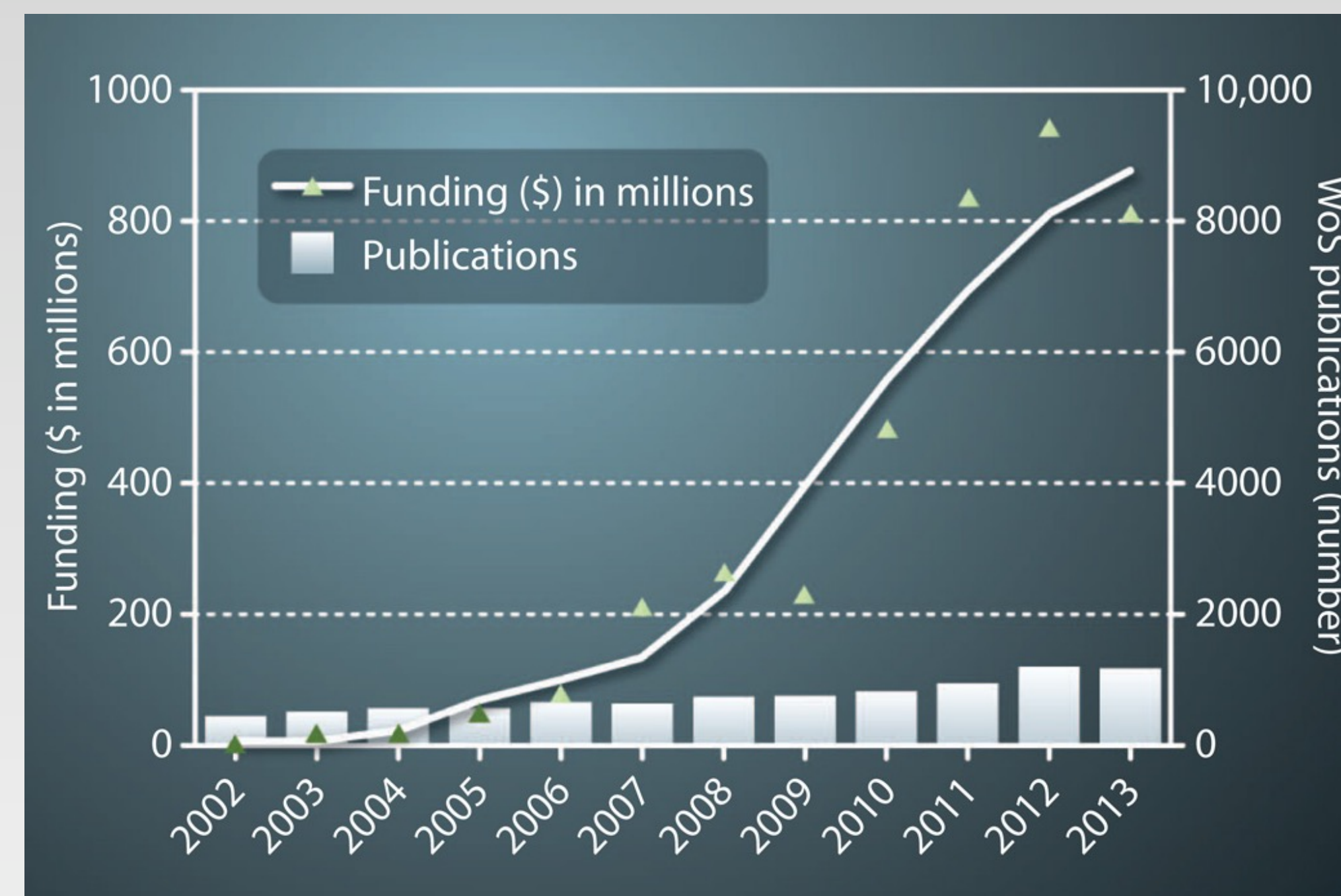


Figure 1: A look at the funding allocation towards published material for funded mHealth apps from the years 2002 to 2013.

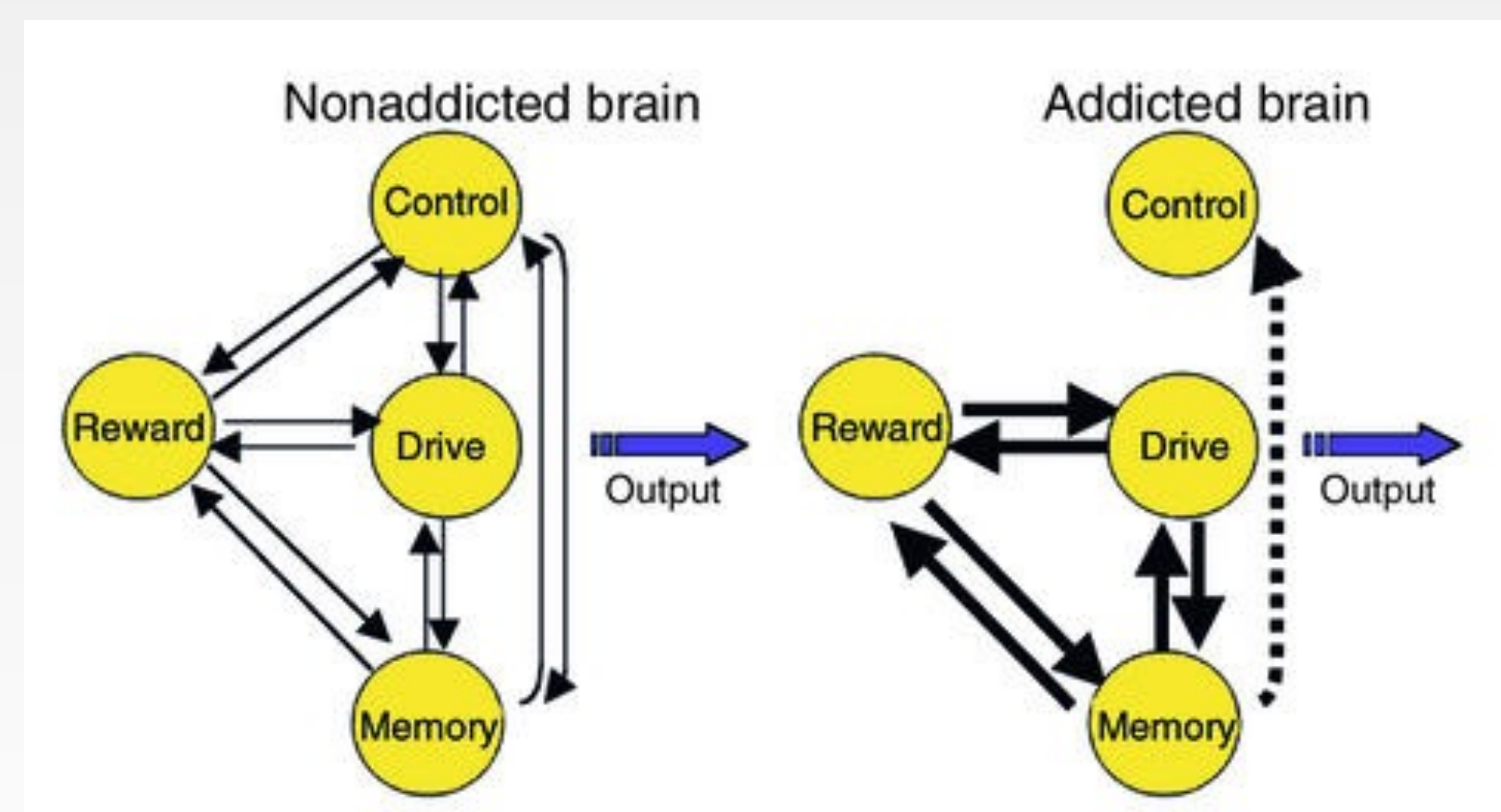


Figure 2: Simplification of neural addiction reward pathways leading to poor behavioural control

OBJECTIVES

To examine factors that evaluate the risk to benefit ratio of mHealth apps.

METHODOLOGY

- Design: systematic review
- 39 papers were identified using PubMed/MEDLINE, EMBASE, and Google Scholar databases to collect and synthesize evidence of mHealth apps efficacy data from March 1, 2000 – March 1, 2020.
- Keywords: “smartphone,” “apps,” “mobile health,” or “mHealth,” “addiction,” and “mental health.”

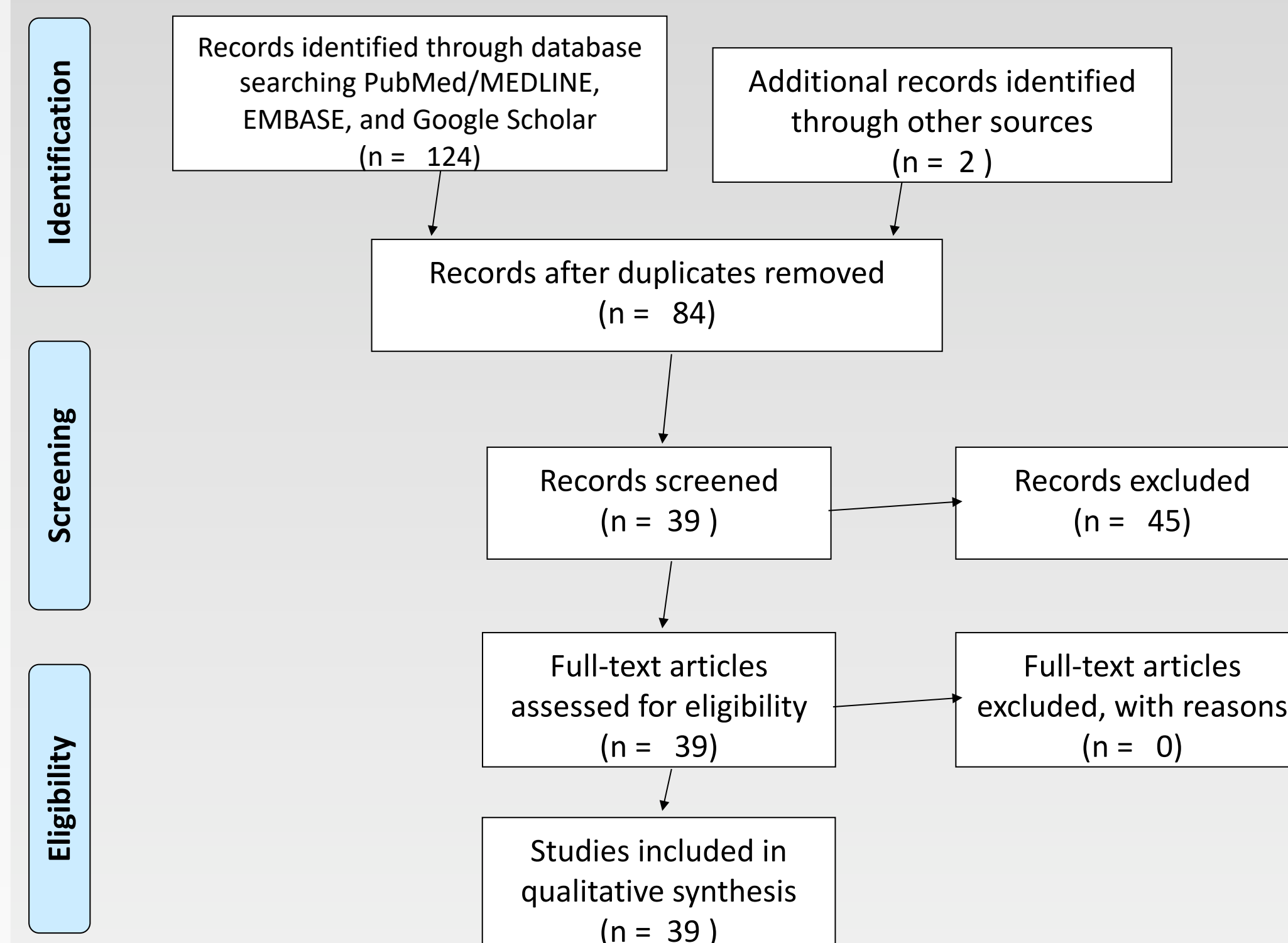


Figure 3: Systematic Review algorithm using PRISMA guidelines

RESULTS

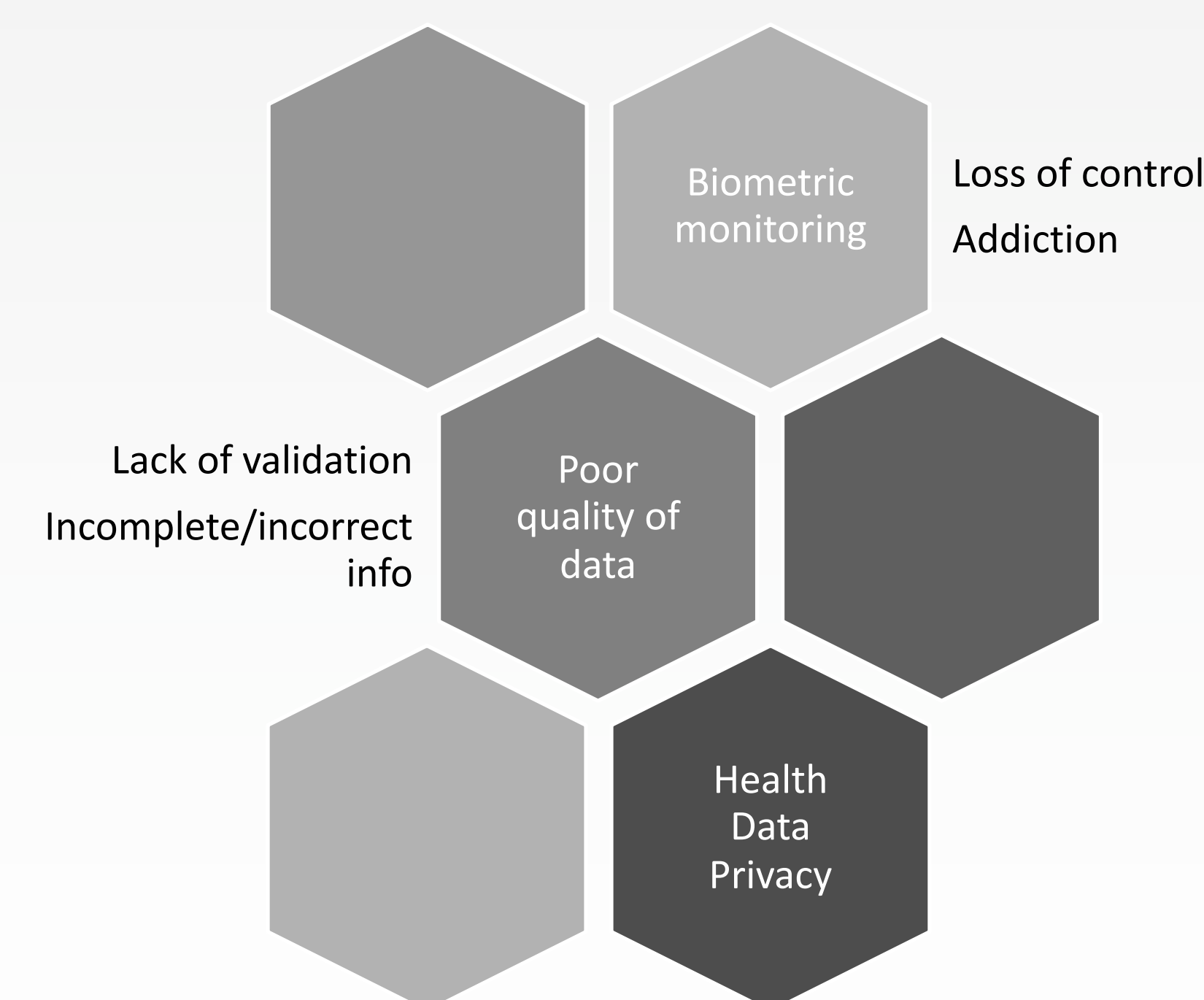
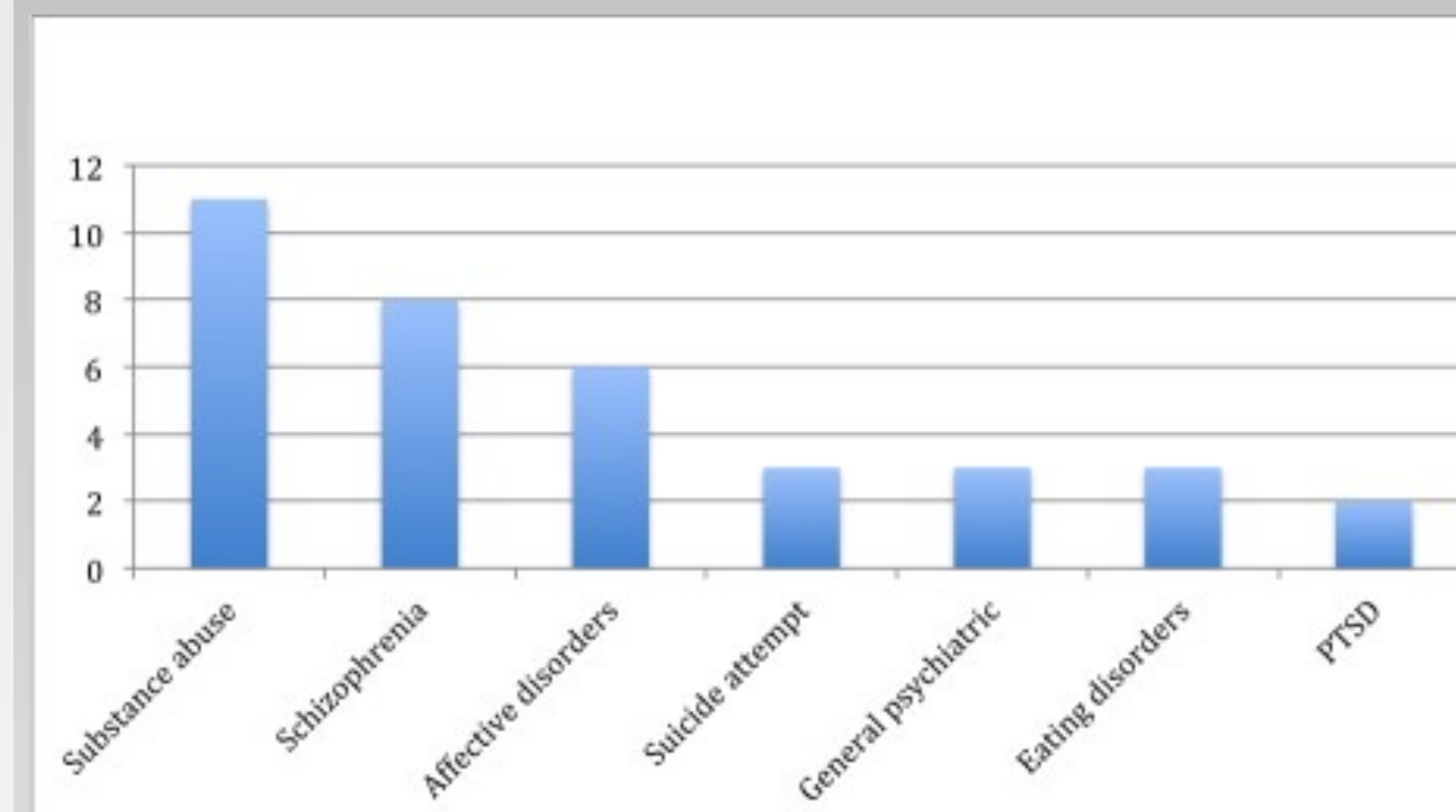


Figure 4: Factor analysis for observed variables in mHealth app risks and benefit

RESULTS



Graph 1: Distribution of mHealth apps on the App Store that are tailored toward specific health disorders.

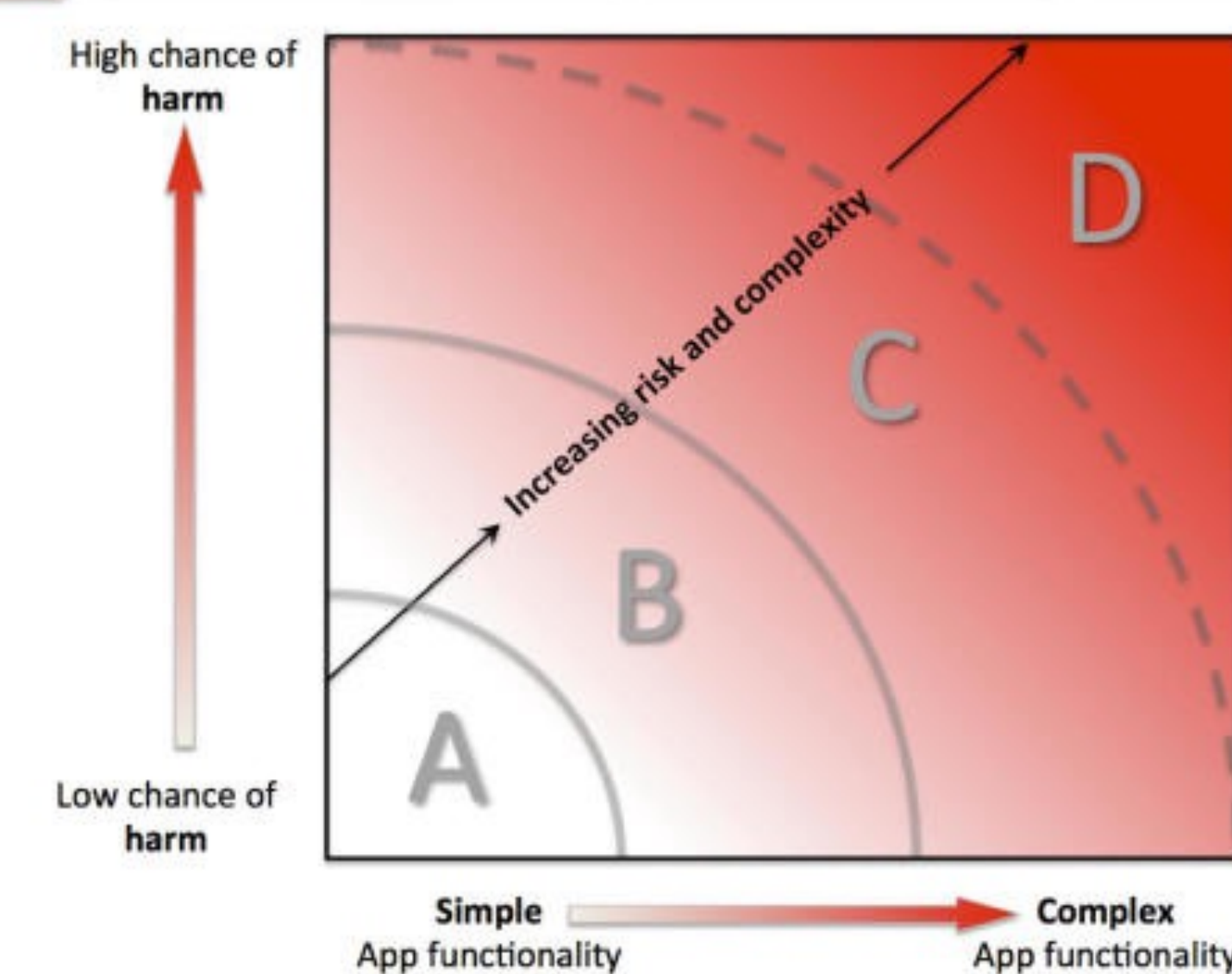
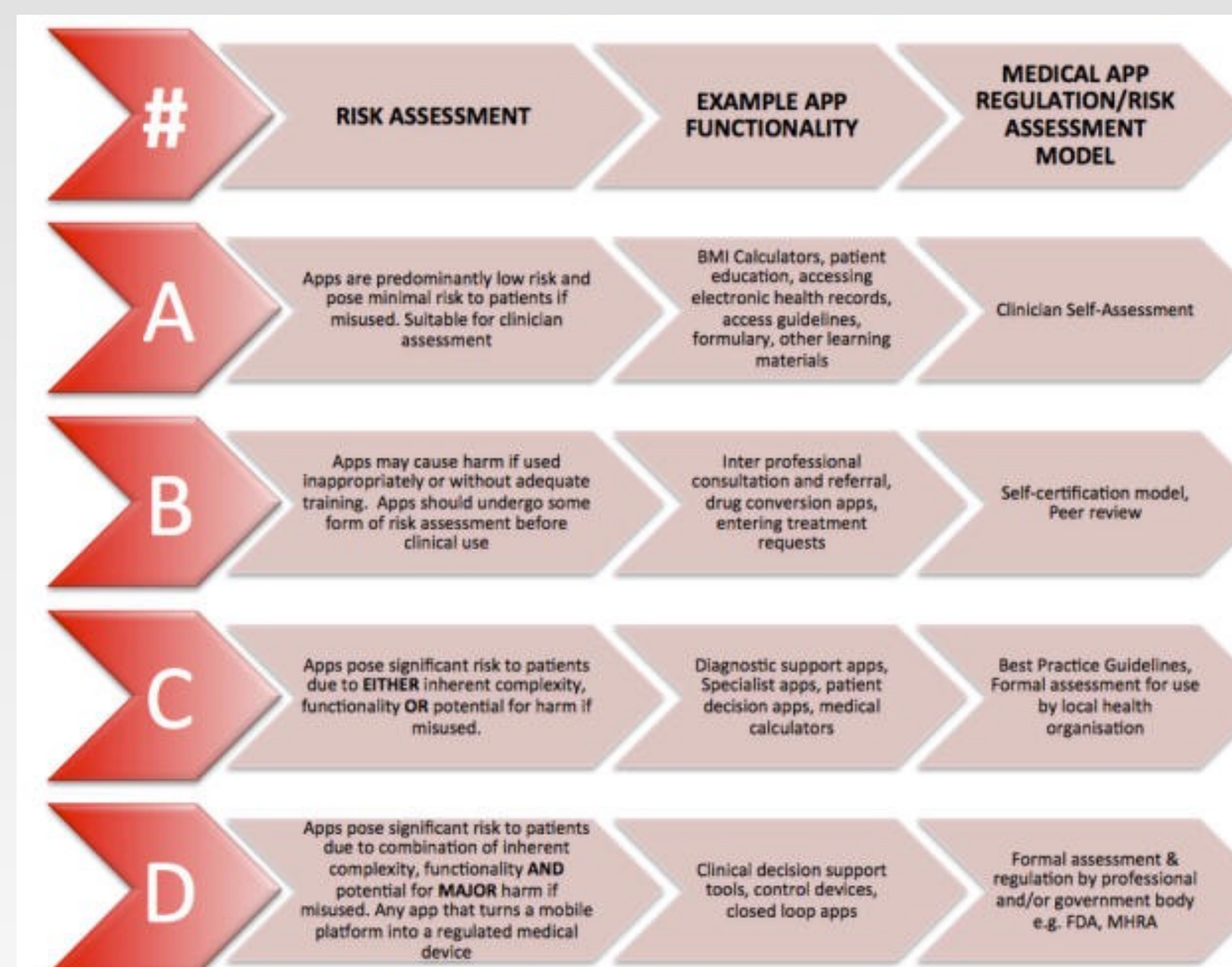


Figure 5: Two-dimensional "App-space" for risk assessment of mobile medical apps with key suggesting appropriate models for app regulation.

CONCLUSIONS

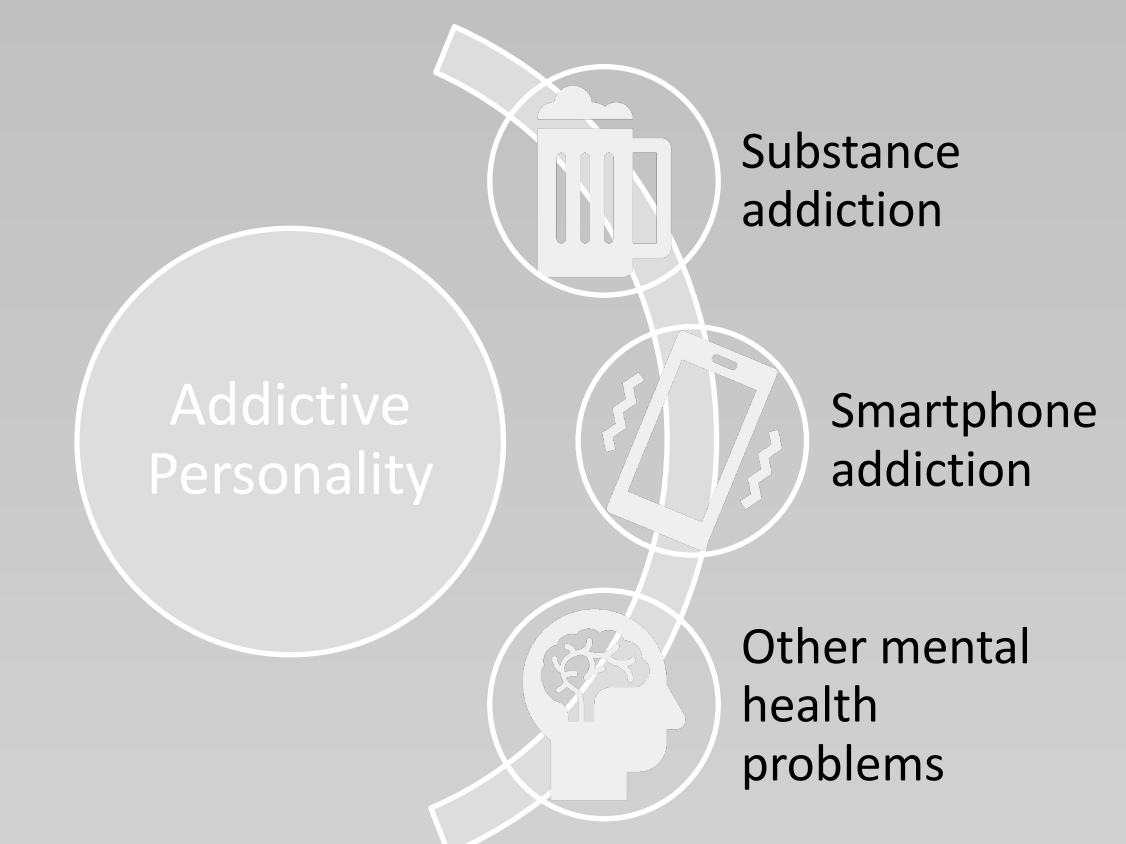
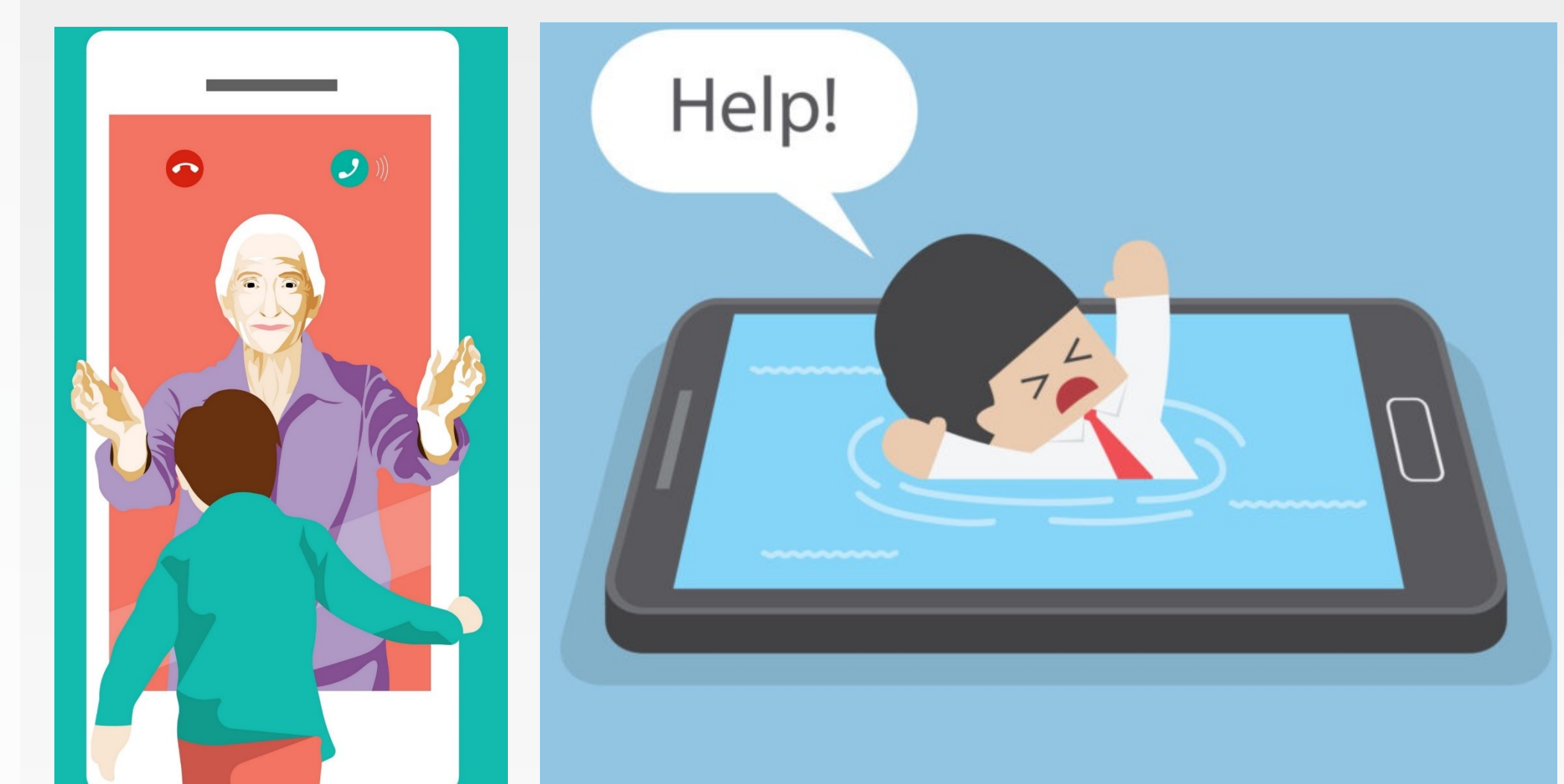


Figure 5: Co-presentation of addictive personalities and compound mental health problems.

One of the biggest predictors of mobile Health app usage is the use of a variety of apps as a daily habit, this will increase the likelihood that people will also use mental health mobile apps. Secondly, hedonic motivation to access and use these apps can tap into dopaminergic pathways of the brain, which is compounded by the use of colourful graphics. Finally, a large amount of these mobile apps have a poor evidence base for efficacy making it more challenging for the everyday user to locate appropriate mHealth resources and promote effective delivery and implementation of e-Mental Health.



ACKNOWLEDGEMENTS



CANADA SUMMER JOBS 2018