

Appendix 1. Sample Search Strategy (PubMed Search)

Search Query Results

#5 Search: #1 AND #2 AND #3 Filters: from 2005 - 2020

#4 Search: #1 AND #2 AND #3

#3 Search: "Parents"[Mesh] or parent*[tw] OR (pediatric* or paediatric* or child* or newborn* or congenital* or infan* or baby or babies or neonat* or pre-term or preterm* or "premature birth*" or NICU or preschool* or pre-school* or kindergarten* or kindergarden* or "elementary school*" or "nursery school*" or ("day care*" not adult*) or schoolchild* or toddler* or boy or boys or girl* or "middle school*" or pubescen* or juvenile* or teen* or youth* or "high school*" or adolesc* or pre-pubesc* or prepubesc*) OR child*[Journal] or adolesc*[Journal] or pediat*[Journal] or paediat*[Journal] OR "child"[MeSH Terms] OR "infant"[MeSH Terms] OR "child, exceptional"[MeSH Terms] OR "adolescent"[MeSH Terms] OR pediatrics[MeSH Terms] OR "child, abandoned"[MeSH Terms] OR "child, orphaned"[MeSH Terms] OR "child, unwanted"[MeSH Terms] OR "minors"[MeSH Terms] OR ("congenital, hereditary, and neonatal diseases and abnormalities"[MeSH Terms])

#2 Search: "Mobile Applications"[MeSH Terms] OR "Telemedicine"[MeSH Terms] or mhealth[tw] or "mobile health"[tw] or "mobile app"[tw] or "mobile apps"[tw] or "mobile application*"[tw] OR "cellphone app"[tw] or "cellphone apps"[tw] or "cellphone application*"[tw] OR "smartphone app"[tw] or "smartphone apps"[tw] or "smartphone application*"[tw] OR "phone app"[tw] or "phone apps"[tw] or "phone application*"[tw] OR "cellphones app"[tw] or "cellphones apps"[tw] or "cellphones application*"[tw] OR "smartphones app"[tw] or "smartphones apps"[tw] or "smartphones application*"[tw] OR "phones app"[tw] or "phones apps"[tw] or "phones application*"[tw] OR "android app"[tw] or "android apps"[tw] or "android application*"[tw] OR "iOS app"[tw] or "iOS apps*"[tw] or "iOS application*"[tw] OR "health app"[tw] or "health apps"[tw] or "health application*"[tw] OR "tablet app"[tw] or "tablet apps"[tw] or "tablet application*"[tw] OR "tablets app"[tw] or "tablets apps"[tw] or "tablets application*"[tw] OR "software app"[tw] OR "software apps"[tw] OR "software application*"[tw]

#1 Search: "Evaluation Studies as Topic"[MeSH Terms] or "Technology Assessment, Biomedical"[MeSH Terms]) or review*[tw] OR evaulat*[tw] OR assess*[tw] OR feasibility[tw] OR validation[tw] OR effective*[tw]

Appendix 2. Data item charting/abstraction procedure

We charted quantitative and qualitative data on study characteristics (e.g., country of origin, funding source, app stores searched and search date, number of apps included), as well as app user characteristics, app characteristics (e.g., cost, app content), and app data sharing practices, security features, and commercial characteristics. Our abstraction of app data handling and security features focused on passive data sharing practices (i.e., data shared with third parties generally without the knowledge of the user), privacy policy presence and content, active user-initiated data sharing to social media platforms, permission requests, login and/or password presence, data encryption practices, and other identified security feature reports. Our abstraction of the commercial characteristics of apps focused on reports of the presence and type of advertisements and in-app purchases.