**SUPPLEMENTAL MATERIAL 1**

**SCOPUS** search strategy

final search: 6

| 1 | TITLE ( digital OR computer OR software OR tablet OR app OR videogame OR seriousgame OR virtualreality ) | 825,580 results |
|---|---|---|
| 2 | ( TITLE-ABS-KEY ( mental AND health ) AND TITLE-ABS-KEY ( addiction OR dependence OR substance OR drug ) ) | 91,262 results |
| 3 | #1 and #2 | 403 results |
| 4 | #3 AND ( LIMIT-TO ( PUBYEAR , 2020 ) OR LIMIT-TO ( PUBYEAR , 2019 ) OR LIMIT-TO ( PUBYEAR , 2018 ) OR LIMIT-TO ( PUBYEAR , 2017 ) OR LIMIT-TO ( PUBYEAR , 2016 ) OR LIMIT-TO ( PUBYEAR , 2015 ) OR LIMIT-TO ( PUBYEAR , 2014 ) OR LIMIT-TO ( PUBYEAR , 2013 ) OR LIMIT-TO ( PUBYEAR , 2012 ) OR LIMIT-TO ( PUBYEAR , 2011 ) OR LIMIT-TO ( PUBYEAR , 2010 ) ) | 198 results |
| 5 | #4 AND ( LIMIT-TO ( DOCTYPE , "ar" ) ) AND ( LIMIT-TO ( LANGUAGE , "english" ) OR LIMIT-TO ( LANGUAGE , "italian" ) OR LIMIT-TO ( LANGUAGE , "spanish" ) ) AND ( LIMIT-TO ( SRCTYPE , "j" ) ) | 135 results |
| 6 | #5 after manually removing review articles, comments and editorials | 96 results |

**PsycInfo** search strategy

Database - CINAHL Complete;APA PsycArticles;APA PsycInfo;Psychology and Behavioral Sciences Collection;American Bibliography of Slavic, East European, and Eurasian Studies;Dentistry & Oral Sciences Source;eBook Collection (EBSCOhost);RILM Abstracts of Music Literature

final search: s7

| s1 | TI digital OR computer OR software OR tablet OR app OR videogame OR seriousgame OR virtualreality | 107,407 results |
|---|---|---|
| s2 | AB mental AND health | 415,190 results |
| s3 | AB addiction OR dependence OR substance OR drug | 765,313 results |
| s4 | s1 and s2 and s3 | 504 results |
| s5 | s4 from 2010 to 2020 | 306 |
| s6 | s5 only english | 299 |
| s7 | s6 after manually removing review articles, book chapters, congress articles, comments and editorials | 290 |

**Web of Science** search strategy

final search: #6

| #1 | digital OR computer OR software OR tablet OR app OR videogame OR seriousgame OR virtualreality (Title) | 551,334 results |
|---|---|---|
| #2 | AB=(mental AND health) | 217,939 results |
| #3 | AB=(addiction OR dependence OR substance OR drug) | 2,554,591 results |
| #4 | #1 and #2 and #3 | 140 results |
| #5 | #1 and #2 and #3 and 2022 or 2021 or 2020 or 2019 or 2018 or 2017 or 2016 or 2015 or 2014 or 2012 or 2011 or 2010 (Publication Years) and English or Spanish (Languages) | 133 results |

| #6 | #5 after manually removing review articles, book chapters, congress articles, comments and editorials | 100 results |
|---|---|---|

**PubMed** search strategy
final search: #6

| #1 | digital[Title] OR computer[Title] OR software[Title] OR tablet[Title] OR app[Title] OR videogame[Title] OR seriousgame[Title] OR virtualreality[Title] | 127,411 results |
|---|---|---|
| #2 | mental[Title/Abstract] AND health[Title/Abstract] | 243,306 results |
| #3 | addiction[Title/Abstract] OR dependence[Title/Abstract] OR substance[Title/Abstract] OR drug[Title/Abstract] | 1,757,837 results |
| #4 | #1 and #2 and #3 | 131 results |
| #5 | #1 and #2 and #3 Filters: English, Italian, Spanish, from 2010 - 2020 | 76 results |
| #6 | #5 after manually removing review articles, book chapters, congress articles, comments and editorials | 44 results |

## SUPPLEMENTAL MATERIAL 2

| | | Chander et al., 2021 | Cucciare et al., 2021 | Curtis et al., 2019 | Danaher et al., 2019 | de Ruijter et al., 2019 | Drislane et al., 2020 | Elison-Davies et al., 2020 | Elison-Davies et al., 2021a | Elison-Davies et al., 2021b | Elison-Davies et al., 2017 | Han et al., 2018 | Kay-Lambkin et al., 2014 | Leightley et al., 2018 | Wernette et al., 2018 | Wodarski et al., 2015 | Qi et al., 2014 | Zhang et al., 2019 | Zhu et al., 2018 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **sample** | *n of sample* | 439 | 138 | 729 | 1271 | 269 | 780 | 5792 | 2571 | 1830 | 2311 | 75 | 35 | 31 | 50 | 5775 | 3309 | 30 | 40 |
| | *mean age* | 31 | 63,18 | 46,83 | 44,9 | 47,3 | | 40,54 | 38,42 | 33,8 | 42,2 | 41,6 | 42,11 | | 23,3 | | | 43,7 | 33,8 |
| **primary substance** | *tobacco* | | | | yes | yes | | yes | | | yes | | | | | | yes | | |
| | *alcohol* | yes | yes | yes | | | yes | yes | | yes | yes | | yes | yes | yes | yes | | yes | |
| | *opioids* | | | yes | | | | yes | yes | | | | | | | | | yes | |
| | *heroin* | | | yes | | | | yes | | | yes | yes | | | | | | yes | |
| | *marijuana/cannabis* | | | yes | | | yes | yes | | yes | yes | | yes | | yes | | | yes | |
| | *benzodiazepines* | | | yes | | | | yes | | | | | | | | | | | |
| | *stimulants* | | | yes | | | | yes | yes | yes | yes | | | | | | | yes | yes |
| | *others* | | | yes | | | | yes | | yes | | | | | | | | | |
| | *not specified substances* | | | | | | | | | | | | | | | yes | | | |
| **gender** | *male* | | 133 | | 280 | 6 | 344 | 3171 | 724 | 1064 | 1271 | 53 | 22 | 27 | | | | 26 | 40 |
| | *female* | 439 | 8 | 725 | 991 | 263 | 436 | 2621 | 1847 | 753 | 1040 | 22 | 13 | 4 | 50 | | | 4 | |
| | *other* | | | 4 | | | | | | 13 | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **tools** | PC/computer (on-line)/platform | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | | yes | | yes | yes | yes | | |
| | smartphone | | | yes | yes | | | | | | | yes | | yes | | | | yes | |
| | tablet | | | yes | | | | | | | | | | | | | | | yes |
| **approaches and models for digital treatments** | BAI (Brief Alcohol Intervention) | yes | yes | | | | | | | | | | | | | | | | |
| | IVR (Interactive Voice Response) | yes | | | | | | | | | | | | | | | | | |
| | D-RSS (digital recovery support services) | | | yes | | | | | | | | | | | | | | | |
| | informative intervention | | | | yes | | | | | | | | | | | yes | | | |
| | e-learning | | | | | yes | | | | | | | | | | | | | |
| | CBI (computer guided theapy) | | | | | | yes | | | | | | | | | | | | |
| | CBT (Cognitive Behavioral Therapy) | | | | yes | | | yes | yes | yes | yes | yes | yes | | | | | | |
| | SDT (Self-Determination Therapy) | | | | | | | | | | | yes | | | | | | | |
| | HAPA (health action process approach) model | | | | | | | | | | | | | yes | | | | | |
| | IMB (Information-Motivation-Behavior) model | | | | | | | | | | | | | | yes | | | | |
| | ESCAPE (Effectiveness of computer-tailored Smoking Cessation Advice in Primary Care) | | | | | | | | | | | | | | | | yes | | |
| | Attentional Bias | | | | | | | | | | | | | | | | | yes | yes |
| **outcomes** | validated measures | yes | | | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | | | | yes | yes |
| | frequency of use | yes | yes | | yes | | yes | yes | yes | | | yes | | yes | yes | yes | yes | | |
| | abstinence | | | yes | yes | yes | | | | | | | | | | | | | |
| | recovery measures | | | yes | | | | yes | yes | yes | yes | | | | | | | | |
| | toxicology test | yes | | | | | | | | | | yes | | | yes | | | | |
| | follow-up | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | | | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **methodology and design** | *pre-post training* | | | | | | | | | | | | | | | | | | yes | yes |
| | *subgroups/conditions* | yes | yes | no | yes | yes | yes | no | no | no | no | yes | yes | no | yes | no | yes | no | yes |
| | *randomized* | yes | yes | no | yes | yes | yes | no | no | no | no | yes | no | no | yes | no | yes | no | yes |
| | *control group/condition* | yes | no | no | no | yes | yes | no | no | no | no | yes | no | no | yes | no | yes | no | yes |
| | *placebo condition* | no | no | no | no | no | no | no | no | no | no | no | no | no | no | no | no | no | no |
| **results** | *evidence of utility at least for one outcome* | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | no |
| | *evidence of utility comparing groups/conditions* | yes | yes | no comparison | yes | yes | no | no comparison | no comparison | no comparison | no comparison | no comparison | no comparison | no comparison | yes | no comparison | no comparison | no comparison | no |

| | | Chander et al., 2021 | Cucciare et al., 2021 | Curtis et al., 2019 | Danaher et al., 2019 | de Ruijter et al., 2019 | Drislane et al., 2020 | Elison-Davies et al., 2020 | Elison-Davies et al., 2021a | Elison-Davies et al., 2021b | Elison-Davies et al., 2017 | Han et al., 2018 | Kay-Lambkin et al., 2014 | Leightley et al., 2018 | Wernette et al., 2018 | Wodarski et al., 2015 | Wu et al., 2014 | Zhang et al., 2019 | Zhu et al., 2018 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **sample** | *n of sample* | 439 | 138 | 729 | 1271 | 269 | 780 | 5792 | 2571 | 1830 | 2311 | 75 | 35 | 31 | 50 | 5775 | 3309 | 30 | 40 |
| | *mean age* | 31 | 63,18 | 46,83 | 44,9 | 47,3 | | 40,54 | 38,42 | 33,8 | 42,2 | 41,6 | 42,11 | | 23,3 | | | 43,7 | 33,8 |
| **primary substance** | *tobacco* | | | | yes | yes | | yes | | yes | | | | | | yes | | | |
| | *alcohol* | yes | yes | yes | | | yes | yes | | yes | yes | | yes | yes | yes | yes | | yes | |
| | *opioids* | | | yes | | | | yes | yes | | | | | | | | | yes | |
| | *heroin* | | | yes | | | | yes | | | yes | yes | | | | | | | |
| | *marijuana/cannabis* | | | yes | | | yes | yes | | yes | yes | | yes | | yes | | | yes | |
| | *benzodiazepines* | | | yes | | | | yes | | | | | | | | | | | |
| | *stimulants* | | | yes | | | | yes | | yes | yes | yes | | | | | | yes | yes |
| | *others* | | | yes | | | | yes | | | yes | | | | | | | | |
| | *not specified substances* | | | | | | | | | | | | | | | yes | | | |
| **gender** | *male* | | 133 | | 280 | 6 | 344 | 3171 | 724 | 1064 | 1271 | 53 | 22 | 27 | | | | 26 | 40 |
| | *female* | 439 | 8 | 725 | 991 | 263 | 436 | 2621 | 1847 | 753 | 1040 | 22 | 13 | 4 | 50 | | | 4 | |
| | *other* | | | 4 | | | | | | 13 | | | | | | | | | |
| **tools** | *PC/computer (on-line)/platform* | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | | yes | | yes | yes | yes | | |
| | *smartphone* | | | yes | yes | | | | | | | | yes | yes | | | | yes | |
| | *tablet* | | | yes | | | | | | | | | | | | | | | yes |
| **approaches and** | *BAI (Brief Alcohol Intervention)* | yes | yes | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **models for digital treatments** | *IVR (Interactive Voice Response)* | yes | | | | | | | | | | | | | | | | | |
| | *D-RSS (digital recovery support services)* | | | yes | | | | | | | | | | | | | | | |
| | *informative intervention* | | | | yes | | | | | | | | | | yes | | | |
| | *e-learning* | | | | | yes | | | | | | | | | | | | | |
| | *CBI (computer guided theapy)* | | | | | | yes | | | | | | | | | | | | |
| | *CBT (Cognitive Behavioral Therapy)* | | | | yes | | | yes | yes | yes | yes | yes | yes | | | | | | |
| | *SDT (Self-Determination Therapy)* | | | | | | | | | | | yes | | | | | | | |
| | *HAPA (health action process approach) model* | | | | | | | | | | | | | yes | | | | | |
| | *IMB (Information-Motivation-Behavior) model* | | | | | | | | | | | | | | yes | | | | |
| | *ESCAPE (Effectiveness of computer-tailored Smoking Cessation Advice in Primary Care)* | | | | | | | | | | | | | | | | yes | | |
| | *Attentional Bias* | | | | | | | | | | | | | | | | | yes | yes |
| **outcomes** | *validated measures* | yes | | | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | | | | yes | yes |
| | *frequency of use* | yes | yes | | yes | | yes | yes | yes | | | yes | | yes | yes | yes | | | |
| | *abstinence* | | | yes | yes | yes | | | | | | | | | | | | | |
| | *recovery measures* | | | yes | | | | yes | yes | yes | yes | | | | | | | | |
| | *toxicology test* | yes | | | | | | | | | | yes | | | yes | | | | |
| **methodology and design** | *follow-up* | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | | | |
| | *pre-post training* | | | | | | | | | | | | | | | | | yes | yes |
| | *subgroups/conditions* | yes | yes | no | yes | yes | yes | no | no | no | no | yes | yes | no | yes | no | yes | no | yes |
| | *randomized* | yes | yes | no | yes | yes | yes | no | no | no | no | yes | no | no | yes | no | yes | no | yes |
| | *control group/condition* | yes | no | no | no | yes | yes | no | no | no | no | yes | no | no | yes | no | yes | no | yes |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *placebo condition* | no | no | no | no | no | no | no | no | no | no | no | no | no | no | no | no | no | no |
| **results** | *evidence of utility at least for one outcome* | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | yes | no |
| | *evidence of utility comparing groups/conditions* | yes | yes | no comparison | yes | yes | no | no comparison | no comparison | no comparison | no comparison | no comparison | no comparison | no comparison | yes | no comparison | no comparison | no comparison | no |