

Prereading for Webinar 3
PIECES of Systematic Reviews NNLM SCR Webinar series

By Margaret J. Foster, MS, MPH, AHIP

See: <https://nnlm.gov/scr/training/systematic-review-series#>

Webinar 3- Evaluation- screening tools

Topic: Evaluate - Screening tools

Date: Thursday, March 21, 2019

Time: 1-2:30pm CT / 12-1:30pm MT

There are 2 sections for this prereading. First, the main focus will be on screening tools, so there are links to tools you might consider and recent articles on those tools. Second, I have provided all of the database searches for the 2 cases we are looking at.

Screening tools and articles

Links to tools

- Rayyan: rayyan.qcri.org/
- Abstrackr: abstrackr.cebm.brown.edu/
- Covidence: www.covidence.org
- DistillerSR: www.evidencepartners.com/products/distillersr-systematic-review-software/
- EPPI Reviewer Web: eppi.ioe.ac.uk/CMS/Default.aspx?alias=eppi.ioe.ac.uk/cms/er4&
- CADIMA: <https://www.cadima.info/>

Articles on screening tools

Kellermeyer, L., Harnke, B., & Knight, S. (2018). [Covidence and Rayyan](#). Journal of the Medical Library Association : JMLA, 106(4), 580–583.

Waffenschmidt, S., Hausner, E., Sieben, W., Jaschinski, T., Knelangen, M., & Overesch, I. (2018). [Effective study selection using text mining or a single-screening approach: a study protocol](#). Systematic reviews, 7(1), 166. doi:10.1186/s13643-018-0839-x

Kohl, C., McIntosh, E. J., Unger, S., Haddaway, N. R., Kecke, S., Schiemann, J., & Wilhelm, R. (February 01, 2018). [Online tools supporting the conduct and reporting of systematic reviews and systematic maps: a case study on CADIMA and review of existing tools](#). Environmental Evidence, 7, 1, 1-17.

Olofsson, H., Brolund, A., Hellberg, C., Silverstein, R., Stenstrom, K., Osterberg, M., & Dagerhamn, J. (September 01, 2017). [Can abstract screening workload be reduced using text mining? User experiences of the tool Rayyan](#). Research Synthesis Methods, 8, 3, 275-280.

Gates, A., Johnson, C., & Hartling, L. (January 01, 2018). [Technology-assisted title and abstract screening for systematic reviews: a retrospective evaluation of the Abstrackr machine learning tool](#). Systematic Reviews, 7, 1.

Case Study 1:

Email to client 1: I have completed the searches for all of the databases that we discussed and uploaded the results into Rayyan. The searches are listed below for your records.

Medline (OVID)

Limited to English, and 2000-current retrieved 1076

1. exp DIABETES MELLITUS/
2. diabet*.ti,ab.
3. or/1-2
4. exp DEPRESSION/ or exp Depressive Disorder/
5. depress*.ti,ab.
6. exp SUICIDE/
7. suicid*.ti,ab.
8. or/4-7
9. exp Adolescent/
10. (adolescen* or teen* or ((high school or middle school or junior high) adj1 student*)).ti,ab.
11. or/9-10
12. 3 and 8 and 11

Embase (OVID)

1. exp DIABETES MELLITUS/
2. diabet*.ti,ab.
3. or/1-2
4. exp DEPRESSION/
5. depress*.ti,ab.
6. exp SUICIDE/
7. suicid*.ti,ab.
8. or/4-7
9. exp Adolescent/
10. (adolescen* or teen* or ((high school or middle school or junior high) adj1 student*)).ti,ab.
11. or/9-10
12. 3 and 8 and 11

CINAHL Ebsco

((MH "Diabetes Mellitus, Type 2") OR (MH "Diabetes Mellitus")) OR TI diabet* OR AB diabet*
AND

(MH "Suicide+") OR (MH "Depression+") OR TI (suicid* or depress*) OR AB (suicid* or depress*)
AND

((MH "Students, High School") or (MH "Adolescence+")) OR TI (adolescen* or teen* or ((high school or middle school or junior high) adj1 student*)) OR AB (adolescen* or teen* or ((high school or middle school or junior high) adj1 student*))

PsycINFO Ebsco

DE "Diabetes Mellitus" OR DE "Type 2 Diabetes" OR TI diabet* OR AB diabet*

AND

(DE "Depression (Emotion)") OR (DE "Major Depression" OR DE "Anaclitic Depression" OR DE "Dysthymic Disorder" OR DE "Endogenous Depression" OR DE "Late Life Depression" OR DE "Postpartum Depression" OR DE "Reactive Depression" OR DE "Recurrent Depression" OR DE "Treatment Resistant Depression") OR TI depress* OR AB depress* OR DE "Suicide" OR DE "Attempted Suicide" OR DE "Suicidality" OR TI suicid* OR AB suicid*

AND

((DE "High School Students") OR (DE "Junior High School Students")) OR (DE "Middle School Students") OR TI (adolescen* or teen* or ((high school or middle school or junior high) adj1 student*)) OR AB (adolescen* or teen* or ((high school or middle school or junior high) adj1 student*))

Eric Ebsco

DE "Diabetes" OR TI diabet* OR AB diabet*

AND

(DE "Depression (Psychology)") OR (DE "Suicide") OR TI (suicid* or depress*) OR AB (suicid* or depress*)

AND

(DE "High School Students" OR DE "High School Freshmen") OR (DE "Junior High School Students" OR DE "Middle School Students") OR TI (adolescen* or teen* or ((high school or middle school or junior high) adj1 student*)) OR AB (adolescen* or teen* or ((high school or middle school or junior high) adj1 student*))

Case Study 2: Database searches

Email to client 2: I have completed the searches for all of the databases that we discussed and uploaded the results into Rayyan. The searches are listed below for your records.

Medline Ovid

1. DIABETES MELLITUS/ or exp DIABETES MELLITUS, TYPE 2/
2. diabet*.ti,ab.
3. or/1-2
4. exp DEPRESSION/ or exp Depressive Disorder/
5. depress*.ti,ab.
6. or/4-5
7. exp Exercise/
8. exp Physical Fitness/
9. exp SPORTS/
10. (exercise or sport*).ti,ab.
11. (physical adj2 (activit* or fitness)).ti,ab.
12. or/7-11
13. 3 and 6 and 12

Embase Ovid March 21 2018

1. exp diabetes mellitus/
2. diabet*.ti,ab.
3. or/1-2
4. exp DEPRESSION/
5. depress*.ti,ab.
6. or/4-5
7. exp Exercise/
8. exp fitness/
9. exp sport/
10. (exercise or sport*).ti,ab.
11. (physical adj2 (activit* or fitness)).ti,ab.
12. or/7-11
13. 3 and 6 and 12

CINAHL ebSCO

((MH "Diabetes Mellitus, Type 2") OR (MH "Diabetes Mellitus")) OR TI diabet* OR AB diabet*
AND
(MH "Depression+") OR TI depress* OR AB depress*
AND
((MH "Sports+") OR (MH "Exercise+") OR (MH "Physical Fitness+")) OR TI ((physical n2
(activit* or fitness)) or sport* or exercise) OR AB ((physical n2 (activit* or fitness)) or sport* or
exercise)

PsycINFO Ebsco

DE "Diabetes Mellitus" OR DE "Type 2 Diabetes" OR TI diabet* OR AB diabet*

AND

(DE "Depression (Emotion)") OR (DE "Major Depression" OR DE "Anaclitic Depression" OR DE "Dysthymic Disorder" OR DE "Endogenous Depression" OR DE "Late Life Depression" OR DE "Postpartum Depression" OR DE "Reactive Depression" OR DE "Recurrent Depression" OR DE "Treatment Resistant Depression") OR TI depress* OR AB depress*

AND

((DE "Exercise" OR DE "Aerobic Exercise" OR DE "Weightlifting" OR DE "Yoga") OR (DE "Sports" OR DE "Baseball" OR DE "Basketball" OR DE "Extreme Sports" OR DE "Football" OR DE "Judo" OR DE "Martial Arts" OR DE "Soccer" OR DE "Swimming" OR DE "Tennis" OR DE "Weightlifting")) OR TI ((physical n2 (activit* or fitness)) or sport* or exercise) OR AB ((physical n2 (activit* or fitness)) or sport* or exercise) OR (DE "Physical Fitness")

Sport DISCUS (Ebsco)

DE "DIABETES" OR DE "ACETONEMIA" OR DE "DIABETES in children" OR DE "DIABETES in youth" OR DE "DIABETIC foot" OR DE "NON-insulin-dependent diabetes" OR DE "TYPE 1 diabetes" OR TI diabet* OR AB diabet*

AND

DE "MENTAL depression" OR TI depress* OR AB depress*

AND

(DE "EXERCISE" OR DE "AEROBIC exercises" OR DE "ANAEROBIC exercises" OR DE "AQUATIC exercises" OR DE "BREATHING exercises" OR DE "BREEMA" OR DE "CALISTHENICS" OR DE "CIRCUIT training" OR DE "COMPOUND exercises" OR DE "COOLDOWN" OR DE "DO-in" OR DE "EXERCISE adherence" OR DE "EXERCISE for children" OR DE "EXERCISE for girls" OR DE "EXERCISE for men" OR DE "EXERCISE for middle-aged persons" OR DE "EXERCISE for older people" OR DE "EXERCISE for people with disabilities" OR DE "EXERCISE for women" OR DE "EXERCISE for youth" OR DE "EXERCISE therapy" OR DE "EXERCISE video games" OR DE "FALUN gong exercises" OR DE "GYMNASTICS" OR DE "HATHA yoga" OR DE "LIANGONG" OR DE "METABOLIC equivalent" OR DE "MULAN quan" OR DE "MUSCLE strength" OR DE "PILATES method" OR DE "PLYOMETRICS" OR DE "QI gong" OR DE "REDUCING exercises" OR DE "RUNNING" OR DE "RUNNING -- Social aspects" OR DE "SCHOOL exercises & recreations" OR DE "STRENGTH training" OR DE "STRESS management exercises" OR DE "TAI chi" OR DE "TREADMILL exercise" OR DE "WHEELCHAIR workouts" OR DE "YOGA") OR (DE "PHYSICAL activity") OR TI ((physical n2 (activit* or fitness)) or sport* or exercise) OR AB ((physical n2 (activit* or fitness)) or sport* or exercise) OR (DE "Physical Fitness")