SAS CODE: SCALABLE MENTAL HEALTH TRAINING IN RURAL NEPAL

/*ACUTE STRESS RESPONSE (ASR) MODULE */
FILENAME REFFILE 'folders/myfolders/Mental Health/ASR_preposttest.xlsx';

PROC IMPORT DATAFILE=REFFILE replace
DBMS=XLSX
OUT=WORK.IMPORT;
GETNAMES=YES;
RUN;

data asr;
set work.import;
if Completion = "Complete" and Completion_1="Complete";
/*Keeping only participants who completed both pre and post tests */
prescore=(pre_adol_bdwet+pre_wmn_cng_beh+pre_ache_afterquake+pre_Scrd_wtnss+pre_pptn_quake);
prescorecent=(prescore/5)*100;
/*Calculating total pre score*/
postscore=(pst_adol_bdwet+pst_wmn_cng_beh+pst_ache_afterquake+pst_Scrd_wtnss+pst_pptn_quake);
postscorecent=(postscore/5)*100;
/*Calculating total post score*/
centchange=postscorecent-prescorecent;
/*Calculating difference in percentage points */
run;

proc univariate data=asr normal plot;
var prescorecent postscorecent centchange;
title "Signed rank test to assess change in knowledge on ASR";
run;

proc means data=asr mean std;
var video_rating;
title "Mean video rating for ASR module";
run;

/*Cleaning dataset for HSDG */
data asr_final;
set asr (drop=pre_idnty_ASR pre_diag_ASR pre_mng_ASR pstat_idnty_ASR pstat_diag_ASR pstat_mng_ASR total_pre_score total_post_score MH_Training Training_wks Completion completion_1);
/*Dropping variables not needed for analysis*/
run;

proc export data=asr_final DBMS=xlsx replace
outfile="/folders/myfolders/Mental Health/HSDG Datasets/asr_prepost_hsdg.xlsx";
run;
/*DEPRESSION MODULE*/
FILENAME REFFILE './folders/myfolders/Mental Health/Depression_preposttest.xlsx';

PROC IMPORT DATAFILE=REFFILE replace DBMS=XLSX OUT=dep; GETNAMES=YES; RUN;

PROC CONTENTS DATA=dep; RUN;

data depress;
  set dep;
    if Completion= "Complete" and Completion_1 = "Complete";
    prescore=pre_slpless_Tired+pre_No_AntDeps + pre_bfore_AntDps + pre_9smpts_dprn + pre_prscb_Amitriptyline;
    prescorecent=(prescore/9)*100;
    /*Calculating total score during pre test*/
    postscore=pst_slpless_Tired + pst_No_AntDeps+pst_bfore_AntDps+ pst_9smpts_dprn+ pst_Prscb_Amitriptyline;
    postscorecent=(postscore/9)*100;
    /*Calculating total score during post test*/
    centchange=postscorecent-prescorecent;
    vid_rating=video_rating*1;
    /*Converting to numeric variable */
run;

proc univariate data=depress; var prescorecent postscorecent centchange; title "Signed rank test to assess change in knowledge on Depression"; run;

proc means data=depress mean std; var vid_rating; title "Mean video rating for Depression module"; run;

proc export data=depress_final DBMS=xlsx replace outfile="/folders/myfolders/Mental Health/HSDG Datasets/depression_prepost_hsdg.xlsx";
run;
/*GRIEF MODULE*/
FILENAME REFFILE '/folders/myfolder/Mental Health/Grief_preposttest.xlsx';

PROC IMPORT DATAFILE=REFFILE
   DBMS=XLSX
   OUT=grief_in;
   GETNAMES=YES;
RUN;

PROC CONTENTS DATA=grief_in; RUN;

data grief;
   set grief_in;
   vid_rating=video_rating*1;
   /*Converting character to numeric*/
      if Completion="Complete" and Completion_1="Complete";
      prescore=pre_lst_hsbd + pre_lst_near + pre_hrng_vcs +
      pre_sgst_ptnt + pre_no_slp;
      prepercent= (prescore/5)*100;
   /*Calculating total score for pre test*/
      postscore = pst_lst_hsbd + pst_lst_near + pst_hrng_vcs +
      pst_sgst_ptnt + pst_no_slp;
      postpercent = (postscore/5) *100;
   /*Calculating total score for post test*/
      percentchange = postpercent - prepercent;
   /*Calculating change in percentage points between post test and pre test*/
run;

proc univariate data = grief;
   var prepercent postpercent percentchange;
   title "Signed rank test to compare change in knowledge on Grief";
run;

proc means data=grief mean std;
   var vid_rating;
   title "Mean video rating for Grief module";
run;

/*Cleaning dataset for HSDG */

data grief_final;
   set grief(drop=pre_idnty_grief pre_diag_grief pre_mng_grief
total_pre_quant_score pst_idnty_grief pst_diag_grief
pst_mng_grief
total_post_quant_score Completion Completion_1 video_rating);
/*Dropping variables not needed for analysis*/
   rename vid_rating=video_rating;
run;

proc export data=grief_final DBMS=xlsx replace
out_file="/folders/myfolders/Mental Health/HSDG Datasets/grief_prepost_hsdg.xlsx"
run;

/*PSYCHOSIS MODULE*/
FILENAME REFFILE '/folders/myfolders/Mental Health/Psychosis_preposttest.xlsx';

PROC IMPORT DATAFILE=REFFILE
   DBMS=XLSX
   OUT=inpsych;
   GETNAMES=YES;
RUN;

PROC CONTENTS DATA=inpsych; RUN;

data psych;
   set inpsych;
   where Completion="Complete" and Completion_1 = "Complete";
   /*Keeping only participants who completed both pre and post tests*/
   prescore = pre_6smpts + pre_noMeds + pre_Wrng_Sgst +
   pre_antipsycs + pre_shv_hands;
   prepercent = (prescore/9)*100;
   /*Calculating total score in pre test*/
   postscore= pst_6smpts + pst_noMeds + pst_Wrng_Sgst +
   pst_antipsycs + pst_shv_hands;
   postpercent = (postscore/9)*100;
   /*Calculating total score in post test*/
   percentchange=postpercent-prepercent;
   /*Calculating change in percentage points from pre test to post test*/
   video_rating=pst_liked_vds*1;
run;

proc univariate data=psych;
   var prepercent postpercent percentchange;
   title "Signed rank test to assess change in knowledge of Psychosis";
run;

proc means data=psych mean std;
   var video_rating;
   title "Mean video rating for Psychosis module";
run;

/*Cleaning dataset for HSDG*/
data psych_final;
   set psych(drop=total_pre_score total_post_score Completion Completion_1 pst_liked_vds);
   /*Dropping variables not needed for analysis*/
run;
proc export data=psych_final DBMS=xlsx replace
   outfile="/folders/myfolders/Mental Health/HSDG Datasets/psych_prepost_hsdg.xlsx"
run;

/*PTSD MODULE*/
FILENAME REFFILE '/folders/myfolders/Mental Health/PTSD_preposttest.xlsx';
PROC IMPORT DATAFILE=REFFILE
   DBMS=XLSX
   OUT=inptsd;
   GETNAMES=YES;
RUN;
PROC CONTENTS DATA=inptsd; RUN;
data ptsd;
   set inptsd;
   if completion = "Complete" and completion_1="Complete" ;
/*Keeping only participants who completed both pre and post tests*/
   prescore= pre_recall + pre_Scrd_Wtness + pre_not_PTSD + pre_stbl_Med + pre_Thrpy;
   prepercent = (prescore/5)*100;
/*Calculating total pre score*/
   postscore= pst_recall + pst_Scrd_Wtness + pst_not_PTSD + pst_stbl_Med + pst_Thrpy;
   postpercent= (postscore/5)*100;
/*Calculating total post score*/
   percentchange = postpercent-prepercent;
/*Calculating change in percentage points from pre test to post test*/un;
proc univariate data=ptsd;
   var prepercent postpercent percentchange;
   title "Signed rank test to assess change in knowledge of PTSD";
run;
proc means data=ptsd mean std;
   var Video_rating;
   title "Mean video rating for PTSD module";
run;
/*Cleaning dataset for HSDG */
data ptsd_final;
   set ptsd(drop=pre_idntfy_PTSD pre_diag_PTSD pre_mng_PTSD
   pst_idntfy_PTSD pst_diag_PTSD pst_mng_PTSD total_pre_score
   total_post_score Completion Completion_1);
   /*Dropping variables not needed for analysis*/un;
proc export data=ptsd_final DBMS=xlsx replace
   outfile="/folders/myfolders/Mental Health/HSDG Datasets/ptsd_prepost_hsdg.xlsx";
run;

/\*ATTITUDES DATASET */

FILENAME REFFILE '/folders/myfolders/Mental Health/MH_Attitudes_PrePost.xlsx';

PROC IMPORT DATAFILE=REFFILE
   DBMS=XLSX
   OUT=mhattitudes;
   GETNAMES=YES;
RUN;

PROC CONTENTS DATA=mhattitudes; RUN;

data attitudes;
   set mhattitudes;
   where pre_mental_health_survey_complet=2 and posttest_mental_health_survey_co=2;
   /*Keeping only participants who completed both pre and post tests*/
run;

proc freq data=attitudes;
   exact agree;
   tables pre_cnt_decide*post_cnt_decid/agree nocol norow missing;
   title "Exact McNemar's test to compare change in attitudes re: patient ability to make decisions";
   /*Using exact test since number of discordant pairs is less than 20*/
run;

proc freq data=attitudes;
   exact agree;
   tables pre_admt*pst_admt/agree nocol norow missing;
   title "Exact McNemar's test to compare change in attitudes re: hospitalizing patients";
   /*Using exact test since number of discordant pairs is less than 20*/
run;

proc freq data=attitudes;
   exact agree;
   tables pre_suic*post_suic/agree nocol norow missing;
   title "Exact McNemar's test to compare change in attitudes re: suicide";
   /*Using exact test since number of discordant pairs is less than 20*/
run;

proc freq data=attitudes;
   exact agree;
   tables pre_meds*post_meds/agree nocol norow missing;
title "Exact McNemar's test to compare change in attitudes re: medication";
/*Using exact test since number of discordant pairs is less than 20*/
run;

/*Cleaning dataset for HSDG */
data attitudes_final;
  set attitudes;
    keep record_id pre_cnt_decide post_cnt_decid pre_admt pst_admt pre_suic post_suic pre_meds post_meds;
/*only keep variables necessary for analysis*/
run;

proc export data=attitudes_final DBMS=xlsx replace
  outfile="/folders/mymfolders/Mental Health/HSDG Datasets/attitudes_prepost_hsdg.xlsx";
run;