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_aftrquake+pre_S
crd_wtnss+pre_pptn_quake);
     prescorecent=(prescore/5)*100;
/*Calculating total pre score*/
     postscore=(pst_adol_bdwet+pst_wmn_cng_beh+pst_ache_aftrquake+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_idntfy_ASR pre_diag_ASR pre_mng_ASR
      pst_idntfy_ASR pst_diag_ASR pst_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;

/*Cleaning dataset for HSDG */
data depress_final;
     set depress (drop=pre_stps_Idntfy_Dprn pre_diag_Dprn pre_mng_Dprn
     total_pre_score pst_stps_Idntfy_Dprn pst_diag_Dprn pst_mng_Dprn
      total_post_score Completion Completion_1 video_rating);
/*Dropping variables not needed for analysis*/
     rename vid_rating=video_rating;
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/myfolders/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
```

```
   outfile="/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*/
run;

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*/
run;
```

```
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/myfolders/Mental Health/HSDG
Datasets/attitudes_prepost_hsdg.xlsx";
run;
```