Abbas S. Tavakoli, DrPH, MPH, ME, USC, College of Nursing

Dr. Tavakoli is a Clinical Associated Professor at the University of South Carolina, College of Nursing. His job entails teaching, research, service and conducting evaluation analyses for the college. He has served as a data manager, biostatistician, and research team member for five NIH-funded R01 grants and as a data manager for numerous smaller grants. He has assisted principal investigators to collect, manage, analyze, publish and present high quality data.

Using CALIS Procedure in SAS ® to Confirm Factor Load on a Bullying Scale for LGBTQ Youth in SC

Abbas S. Tavakoli, DrPH, MPH, ME   Laura C. Hein, PhD, RN, FAAN   Mary F. Cox, PhD, RN, CPNP-PC

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ABSTRACT

Confirmatory factor analysis (CFA) is as a statistical method to verify the latent factors structure from a set of observed variables. All youth are at risk for bullying in the school environment. Students who identify as lesbian, gay, bisexual, transgender, and/or questioning (LGBTQ) are at greater risk for bullying than heterosexual students. Confirmatory factor analyses used to examine and confirm these two factors for bullying. The SAS ®6 PROC FACTOR and CALIS (Covariance Analysis of Linear Structural Equations) procedures support exploratory and confirmatory analysis. Our results indicated the model was not completely fit and could be improved. However, our results revealed all items loaded correctly into two latent factors. Coefficient alpha reliability was calculated to assess the scale reliability. Alpha coefficient reliabilities were .88,.87, and .84 for total bullying, hearing bullying of others, and experiencing bullying; respectively.

INTRODUCTION

Factor analysis is a statistical method to find a set of unobserved variables or factors from a larger set of observed variables. Factor analysis includes Exploratory and Confirmatory analysis. The SAS ®6 PROC FACTOR and CALIS (Covariance Analysis of Linear Structural Equations) procedures support exploratory and confirmatory analysis.

PURPOSE

The purpose of this paper is to describe the use of the CALIS procedure in SAS® 9.4[6] to confirm factors that load for a bullying scale for LGBTQ youth in South Carolina (SC).

METHODOLOGY

We examined data from a 2013 survey of LGBTQ South Carolinians, including self-identified transgender or genderqueer people. Confirmatory factor analysis was used to examine and confirm two factors for bullying. Confirmatory factor analysis used several statistical test to examine the fit of model. The CALIS procedure of factor analysis provided estimates of path coefficient, variance, and covariance. Alpha coefficients were calculated for subscales and total scale. Correlation between subscales was examined with Pearson correlation. Proc Means, Corr, and Calis were used to analyze the data. All data analyses were performed using SAS/STAT® version 9.4.

RESULTS

Table 1:   Mean and STD of bullying scales, LGBTQ Youth study

Table 2.   Standardized Factor loading Matrix for bullying, LGBTQ Youth study

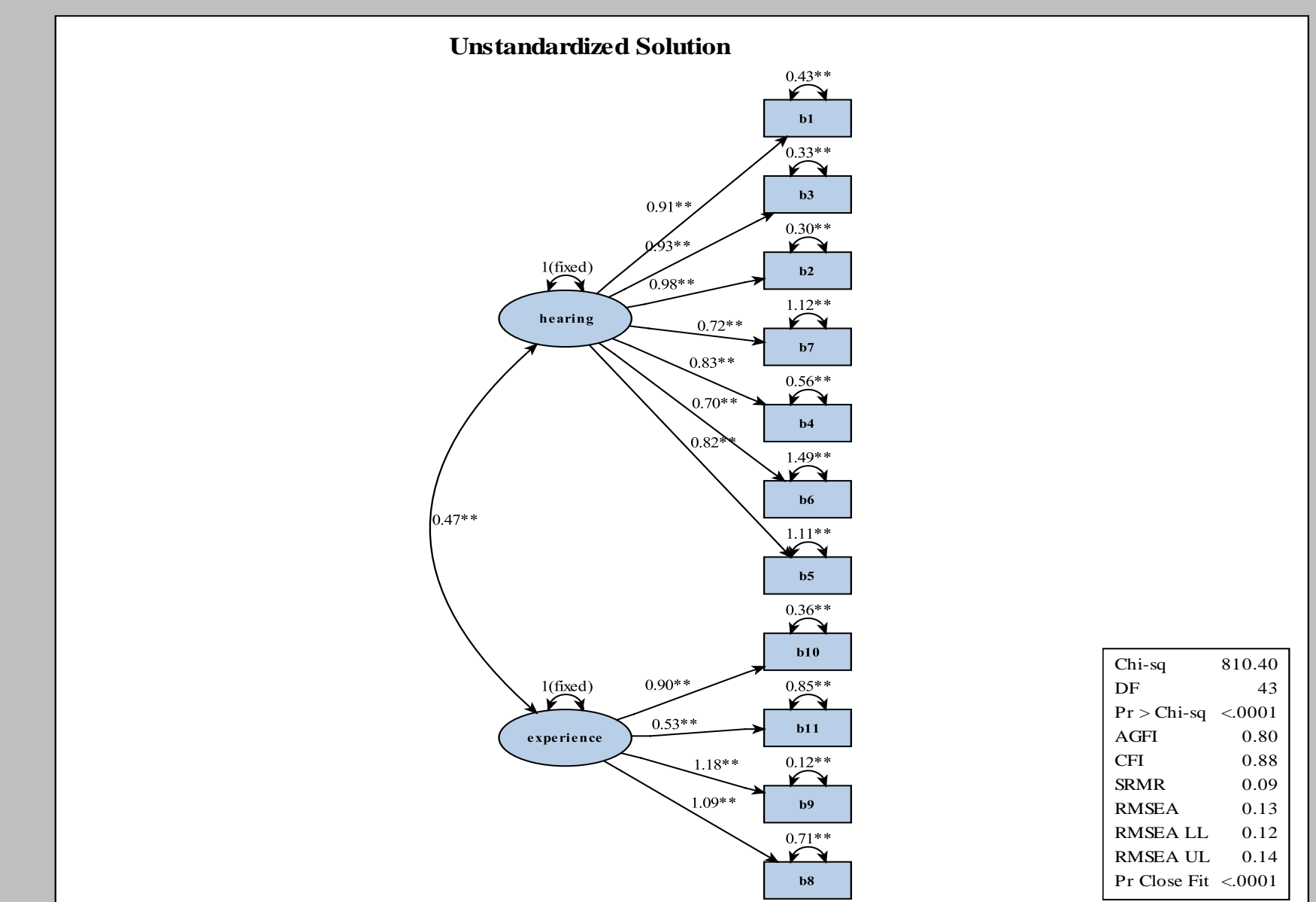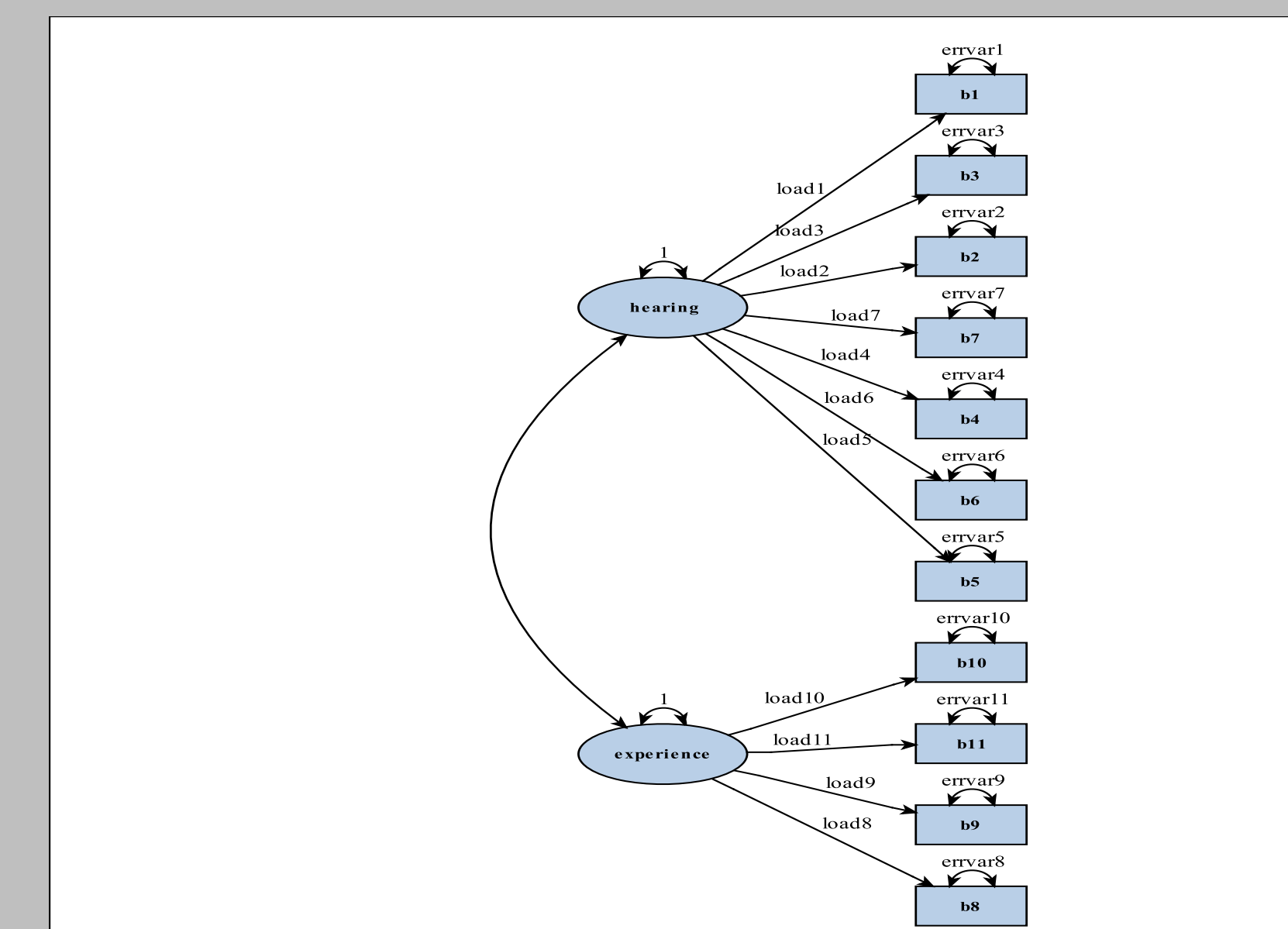Figure 1: The initial model for bullying, LGBTQ Youth study

Figure 2: Unstandardized Solution for bullying, LGBTQ Youth study

Table 1: Mean and STD of bullying scales, LGBTQ Youth study

Label	Mean	Std Dev
hearing gay used in a negative way	3.98	1.12
hearing other anti-LGBT remarks	3.83	1.13
hearing sexist remarks	3.80	1.09
hearing racist remarks	3.72	1.11
hearing comments about not acting masculine enough	3.18	1.33
hearing comments about not acting feminine enough	2.68	1.40
hearing biased comments from teachers or other school staff	2.51	1.28
experiencing fear of being physically harassed (e.g. verbal threats)	2.53	1.38
experiencing actual physical harassment (e.g. pushed or shoved)	2.00	1.23
experiencing actual physical violence (e.g. punched, kicked, or injured with a weapon)	1.61	1.08
experiencing some form of electronic harassment (e.g. cyber bullying)	1.56	1.06

Table 2. Standardized Factor loading Matrix for bullying, LGBTQ Youth study

Items	Hearing	Experience
hearing gay used in a negative way	.81	
hearing other anti-LGBT remarks	.87	
hearing sexist remarks	.85	
hearing racist remarks	.74	
hearing comments about not acting masculine enough	.61	
hearing comments about not acting feminine enough	.50	
hearing biased comments from teachers or other school staff	.56	
experiencing fear of being physically harassed (e.g. verbal threats)		.79
experiencing actual physical harassment (e.g. pushed or shoved)		.96
experiencing actual physical violence (e.g. punched, kicked, or injured with a weapon)		.83
experiencing some form of electronic harassment (e.g. cyber bullying)		.50

Unstandardized Solution

Chi-sq	810.40
DF	43
Pr > Chi-sq	<.0001
AGFI	0.80
CFI	0.88
SRMR	0.09
RMSEA	0.13
RMSEA LL	0.12
RMSEA UL	0.14
Pr Close Fit	<.0001

CONCLUSION

Our results indicated the model was not completely fit and could be improved. However, our results revealed all items loaded correctly into two latent factors. Coefficient alpha reliabilities were calculated to assess scale reliability. Alpha coefficient reliabilities were .88, .87, and .84 for total bullying, hearing bullying of others, and experiencing bullying; respectively.

EPOSTERBOARDS TEMPLATE

Abbas S. Tavakoli, DrPH, MPH, ME   Laura C. Hein, PhD, RN, FAAN   Mary F. Cox, PhD, RN, CPNP-PC
College of Nursing, University of South Carolina.

SAS SYNTAX

```
**** Data Manipulation      ***;
data one;
set sclgbt.sclgbtall;
run;
data two;
set one;
**** reversing code for the items   ***;
array itema outp -- outa pot -- otherdrug dbother -- dgoing;
     do over itema ;
        if itema = 5 or itema=6 then    itema=.;    end;

array itemb tfeeluniq -- tfeelpart partrw -- partro;
     do over itemb;
        if itemb = 6 then itemb=.;     end;
array itemc suicidea;
     do over itemc;
        if itemc = 3 or itemc=4 then   itemc=.;     end;

tout = sum (of outp outbs outfam outf outc oute outr outn outa);
tq44 = sum (of schoolneg schoolanti schoolsex schoolrac schoolmas schoolfem
        schoolstaff schoolfear schoolhar schoolvio schoolelec);
thear = sum (of schoolneg schoolanti schoolsex schoolrac schoolmas schoolfem
        schoolstaff );
texp = sum (of  schoolfear schoolhar schoolvio schoolelec);

label
        tout = "parent child relationship"
        tq44 = "Total scale/ q44"
        thear =" Hearing/ subscale q44"
        texp  =" experience / suscale q44"    ;
run;

data three;
set two;
array iteme schoolneg schoolanti schoolsex schoolrac schoolmas schoolfem
        schoolstaff schoolfear schoolhar schoolvio schoolelec;
array itemf b1- b11;
     do over iteme;
        itemf = iteme; ;    end;
label
b1=" hearing gay used in a negative way"
 b2="bhearing other anti-LGBT remarks "
 b3="hearing sexist remarks"
 b4="hearing racist remarks"
 b5="hearing comments about not acting masculine enough"
 b6="hearing comments about not acting feminine enough"
 b7="hearing biased comments from teachers or other school staff"
 b8="experiencing fear of being physically harassed (e.g. verbal threats)"
 b9="experiencing actual physical harassment (e.g. pushed or shoved)"
 b10="experiencing actual physical violence (e.g. punched, kicked, or injured
with a weapon)"
b11="experiencing some form of electronic harassment (e.g. cyber bullying)";
format b1-b11 b1f.; run;
```

SAS SYNTAX (Continue)

```
Ods rtf; ods listing close;
%macro corr (q);
proc corr nocorr alpha nomiss data=three;
        var    &q;;
        title ' Reliability coeffcient';
            title2 'SCLGBT project';
%mend corr;
%corr ( b1-b11);
%corr ( b1-b7 );
%corr (  b8-b11);
run;   ods rtf close;   ods listing;   quit; run;

*** Calis ***;
Ods rtf; ods listing close;

proc calis data=three  modification ;
        factor
            hearing   -> b1-b7  = load1-load7;
            experience    -> b8-b11  = load8-load11;
                pvar
            hearing experience = 2* 1.,
            b1-b11 = errvar1-errvar11;
            pathdiagram diagram=initial notitle;
title ' Confirm Factor analysis';   title2 'SCLGBT project';       run;

proc calis data=three  modification plot=pathdiagram residual;
        factor
            hearing   -> b1-b7  = load1-load7;
            experience    -> b8-b11  = load8-load11;
                pvar
            hearing experience = 2* 1.,
            b1-b11 = errvar1-errvar11;
           *pathdiagram diagram=initial notitle;
title ' Confirm Factor analysis';       title2 'SCLGBT project';          run;
ods rtf close; ods listing; quit; run;
```

ACKNOWLEDGEMENTS/CONTACT

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Using CALIS Procedure in SAS ® to Confirm Factors Load for Bullying Scale for LGBTQ Youth in SC

Abbas S. Tavakoli, DrPH, MPH, ME[1] Laura C. Hein, PhD[1], Mary F. Cox, PhD[1]
[1]University of South Carolina, College of Nursing

ABSTRACT

Confirmatory factor analysis (CFA) uses as a statistical method to verify the latent factors structure from a set of observed variables. LGBTQ youth are at high risk for bullying in the school environment. Students who identify themselves as lesbian, gay, bi-sexual, transgender, and/or questioning (LGBTQ) are at greater risk for bullying than those students who consider themselves heterosexual. LGBTQ youth data in SC are used to analyze. Confirmatory factor analyses used to examine and confirm these two factors for bullying. Confirmatory factor analysis used several statistical tests to examine the fit of model. Goodness of fit indices includes Chi-square test, Norm Fit Index (NFI), Non-Norm Fit Index (NNFI), Comparative Fit Index (CFI), and Root Mean Square Error of Approximation (RMSEA). The SAS ®[6] PROC FACTOR and CALIS (Covariance Analysis of Linear Structural Equations) procedures support exploratory and confirmatory analysis. Our results indicated the model was not completely fit and could improve. However, our result revealed all items loaded correctly into two latent factors. Coefficient alpha reliability was calculated to assess the scale reliability. Alpha coefficient reliabilities were .88, .87, and .84 for total bullying, hearing, and experience; respectively.

Keywords: SAS, CALIS, Bullying,

University of South Carolina, College of Nursing.

INTRODUCTION

Factor analysis use as a statistical method to find a set of unobserved variables or factors from a larger set of observed variables. Factor analysis includes Exploratory and Confirmatory analysis. The purpose of exploratory factor analysis is to examine the relationships among sets of observed variables without a prior fixed number of factors. Confirmatory factor analysis used to examine how well observed variables represented the fixed set of factors or constructs. The SAS ®[6] PROC FACTOR and CALIS (Covariance Analysis of Linear Structural Equations) procedures support exploratory and confirmatory analysis.

PURPOSE

The purpose of this paper is using CALIS procedure in SAS® 9.4[6] to confirm factors that load for a bullying scale for LGBTQ youth in South Carolina (SC).

BACKGROUND

LGBTQ youth are at high risk for bullying in the school environment. Students who identify themselves as lesbian, gay, bi-sexual, transgender, and/or questioning (LGBTQ) are at greater risk for bullying than those students who consider themselves heterosexual[4]. The Gay, Lesbian, & Straight Education Network (GLSEN) reports that the majority of LGBTQ students feel unsafe in their school environments[5]. Furthermore, four out of five students reports being verbally harassed, and almost 40% reported being physically harassed due to their sexual orientation[2]. Despite these alarming statistics, researchers have found that teachers are uncomfortable intervening with bullying related to sexual orientation as compared with other types of bullying[1]. The bullying scales includes 11 items (see table 1). There two sub scales Hearing (first seven items) and experience (last four items).

Table 1. Bullying Items, **LBGTQ Youth study**

Items	
b1	hearing gay used in a negative way
b2	hearing other anti-LGBT remarks
b3	hearing sexist remarks
b4	hearing racist remarks
b5	hearing comments about not acting masculine enough
b6	hearing comments about not acting feminine enough
b7	hearing biased comments from teachers or other school staff
b8	experiencing fear of being physically harassed (e.g. verbal threats)
b9	experiencing actual physical harassment (e.g. pushed or shoved)
b10	experiencing actual physical violence (e.g. punched, kicked, or injured with a weapon)
b11	experiencing some form of electronic harassment (e.g. cyber bullying)

METHODS

LGBTQ youth data in SC are used to analyze. We examined data from a 2013 survey of LGBTQ South Carolinians, including self-identified transgender or genderqueer people. Confirmatory factor analyses used to examine and confirm these two factors for bullying. Confirmatory factor analysis used several statistical test to examine the fit of model. Goodness of fit indices includes Chi-square test, Norm Fit Index (NFI), Non-Norm Fit Index (NNFI), Comparative Fit Index (CFI), and Root Mean Square Error of Approximation (RMSEA). If the model is fit, the chi square must not be significant or the ratio of chi square to its Degree Freedom (DF) must be less than two. The NFI, NNFI, and CFI range is 0 to 1. The closer to one (1) is good fit got model .The value for these indices greater than .90 indicated good fit for model[4] . The CALIS procedure estimates included path coefficient, variance, and covariance .Alpha coefficients calculated for subscales and total scale. Pearson correlation used to examine the correlation between subscales. Proc Means, Corr, and Calis used to analyze data. All data analyses were performed using SAS/STAT® version 9.4[6].

RESULTS

Table 2 shows descriptive statistics for bullying items. The result indicate the mean for items range from lowest means of 1.56 for experiencing some form of electronic harassment (e.g. cyber bullying) to highest means of 3.98 for hearing gay used in a negative way.

Table 2: N, Mean, STD, and Range of bullying scales, LBGTQ Youth study

Label	N	Mean	Std Dev	Min	Max
hearing gay used in a negative way	1081	3.98	1.12	1.00	5.00
hearing other anti-LGBT remarks	1079	3.83	1.13	1.00	5.00
hearing sexist remarks	1079	3.80	1.09	1.00	5.00
hearing racist remarks	1073	3.72	1.11	1.00	5.00
hearing comments about not acting masculine enough	1071	3.18	1.33	1.00	5.00
hearing comments about not acting feminine enough	1070	2.68	1.40	1.00	5.00
hearing biased comments from teachers or other school staff	1072	2.51	1.28	1.00	5.00
experiencing fear of being physically harassed (e.g. verbal threats)	1068	2.53	1.38	1.00	5.00
experiencing actual physical harassment (e.g. pushed or shoved)	1072	2.00	1.23	1.00	5.00
experiencing actual physical violence (e.g. punched, kicked, or injured with a weapon)	1074	1.61	1.08	1.00	5.00
experiencing some form of electronic harassment (e.g. cyber bullying)	1073	1.56	1.06	1.00	5.00

Figure 1 showed the paths from items to two latent factors (hearing and experience). The figure showed the path from b1- b7 to hearing and from b8 - b11 to experience.

Figure 1: The initial model for bullying, LBGTQ Youth study
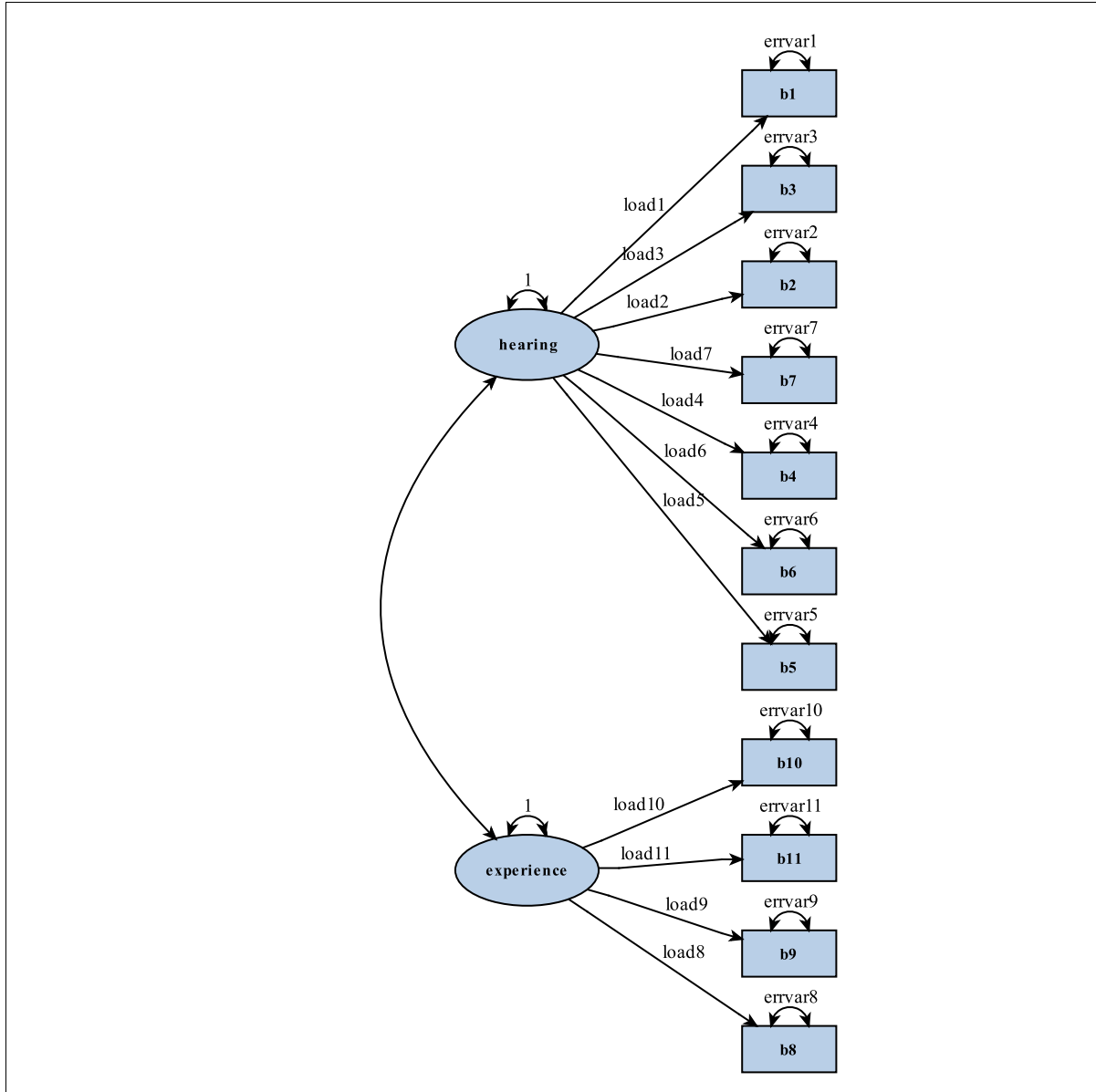
Table 3 showed the model information. The analysis used 1024 observations. There were 11 items with two factors.

Table 3. Model information for bullying, LBGTQ Youth study

Modeling Information	
Maximum Likelihood Estimation	
Data Set	WORK.THREE
N Records Read	1154
N Records Used	1024
N Obs	1024
Model Type	FACTOR
Analysis	Covariances

Variables in the Model	
Variables	b1 b2 b3 b4 b5 b6 b7 b8 b9 b10 b11
Factors	hearing experience
Number of Variables = 11 **Number of Factors = 2**	

Table 4 indicated fit summary .The chi-square statistics showed the model is not good fit. The value of NFI, NNFI, and CFI were .88, .88, and .87; respectively. These values indicated that the model could be fit better even they were close to .90. The RMSR value was .14, which indicate the model is not fit.

Table 4. Fit Summary for bullying, LBGTQ Youth study

Fit Summary		
Modeling Info	**Number of Observations**	1024
	Number of Variables	11
	Number of Moments	66
	Number of Parameters	23
	Number of Active Constraints	0
	Baseline Model Function Value	6.4541
	Baseline Model Chi-Square	6602.5458
	Baseline Model Chi-Square DF	55
	Pr > Baseline Model Chi-Square	<.0001
Absolute Index	**Fit Function**	0.7922
	Chi-Square	810.3997
	Chi-Square DF	43
	Pr > Chi-Square	<.0001
	Z-Test of Wilson & Hilferty	23.1798
	Hoelter Critical N	75
	Root Mean Square Residual (RMR)	0.1352
	Standardized RMR (SRMR)	0.0854
	Goodness of Fit Index (GFI)	0.8682
Parsimony Index	**Adjusted GFI (AGFI)**	0.7977
	Parsimonious GFI	0.6788
	RMSEA Estimate	0.1321
	RMSEA Lower 90% Confidence Limit	0.1242
	RMSEA Upper 90% Confidence Limit	0.1401
	Probability of Close Fit	<.0001
	ECVI Estimate	0.8377
	ECVI Lower 90% Confidence Limit	0.7505
	ECVI Upper 90% Confidence Limit	0.9322
	Akaike Information Criterion	856.3997

Fit Summary		
	Bozdogan CAIC	992.8236
	Schwarz Bayesian Criterion	969.8236
	McDonald Centrality	0.6875
Incremental Index	Bentler Comparative Fit Index	0.8828
	Bentler-Bonett NFI	0.8773
	Bentler-Bonett Non-normed Index	0.8501
	Bollen Normed Index Rho1	0.8430
	Bollen Non-normed Index Delta2	0.8830
	James et al. Parsimonious NFI	0.6859

Table 5 showed Unstandardized and Standardized factor-loading matrix. The result indicated all of the path were significant for both factors (P <.0001). The standardized path range from .50 to .96.

Table 5. Unstandardized and Standardized Factor loading Matrix for bullying, LBGTQ Youth study

tor Loading Matrix: Estimate/StdErr/t-value/p-value		
	hearing	**experience**
b1	0.9081 0.0297 30.6204 <.0001]	0
b2	0.9826 0.0285 34.4623 <.0001]	0
b3	0.9255 0.0282 32.8436 <.0001	0
b4	0.8295 0.0308 26.9328 <.0001	0
b5	0.8165 0.0391 20.8928 <.0001	0

Standardized Factor Loading Matrix: Estimate/StdErr/t-value/p-value		
	hearing	**experience**
b1	0.8106 0.0126 64.1985 <.0001	0
b2	0.8746 0.009719 89.9886 <.0001	0
b3	0.8485 0.0109 77.9584 <.0001	0
b4	0.7421 0.0158 47.1035 <.0001]	0
b5	0.6120 0.0211 28.9800 <.0001	0

tor Loading Matrix: Estimate/StdErr/t-value/p-value		
	hearing	**experience**
b6	0.6975 0.0429 16.2537 <.0001	0
b7	0.7186 0.0381 18.8442 <.0001	0
b8	0	1.0872 0.0368 29.5284 <.0001
b9	0	1.1827 0.0297 39.8243 <.0001
b10	0	0.9027 0.0283 31.8826 <.0001]
b11	0	0.5300 0.0320 16.5430 <.0001

Standardized Factor Loading Matrix: Estimate/StdErr/t-value/p-value		
	hearing	**experience**
b6	0.4958 0.0251 19.7669 <.0001 [load6]	0
b7	0.5624 0.0229 24.5515 <.0001]	0
b8	0	0.7896 0.0134 58.7211 <.0001]
b9	0	0.9603 0.007778 123.4580 <.0001
b10	0	0.8330 0.0117 71.4744 <.0001
b11	0	0.4982 0.0246 20.2845 <.0001

Table 6 showed squared multiple correlation. The R square for items to factors range from .25 to .92.

Table 6. Squared Multiple Correlation bullying, LBGTQ Youth study

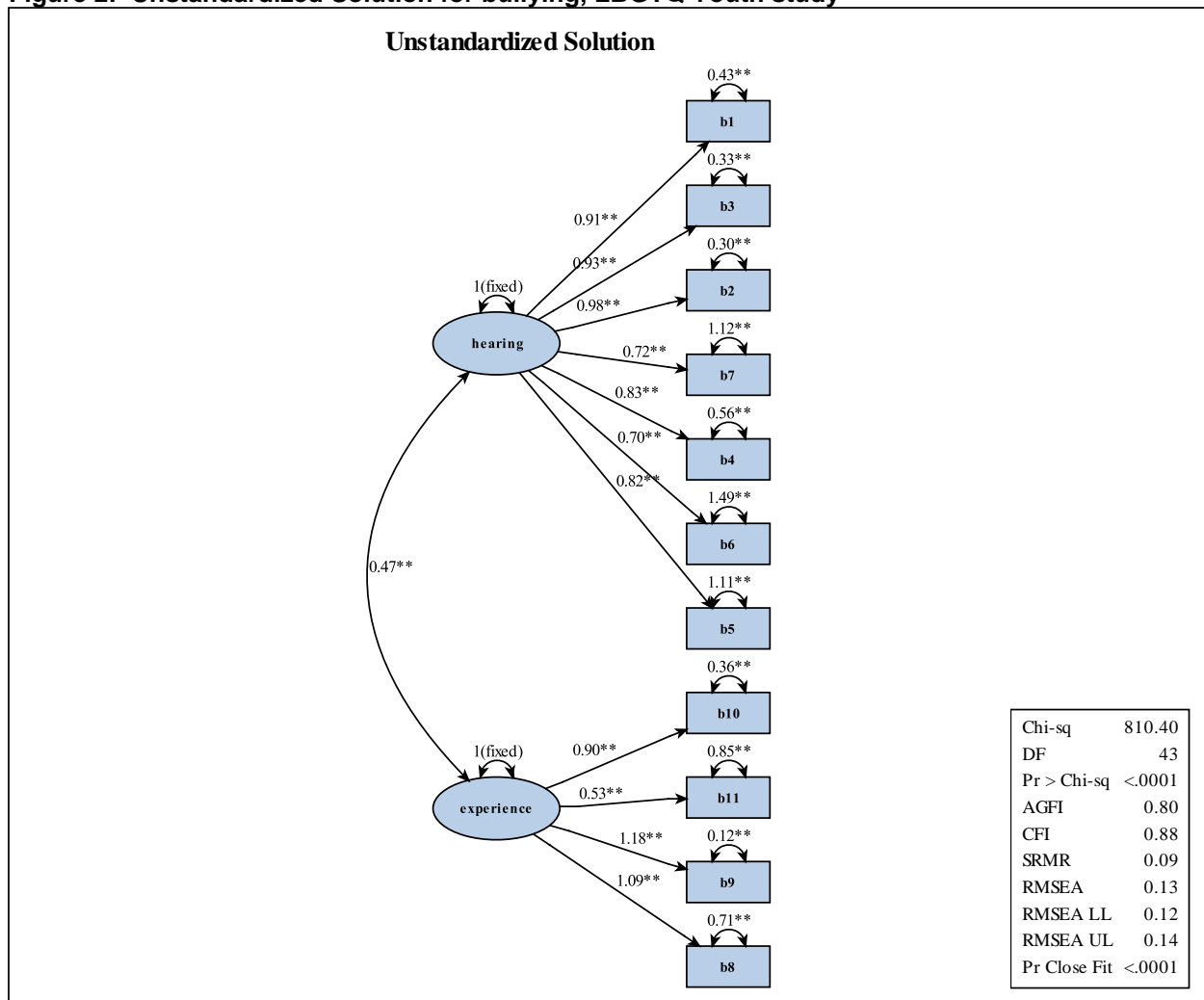| Squared Multiple Correlations			
Variable	**Error Variance**	**Total Variance**	**R-Square**
b1	0.43025	1.25489	0.6571
b2	0.29663	1.26208	0.7650
b3	0.33319	1.18979	0.7200
b4	0.56126	1.24939	0.5508
b5	1.11357	1.78030	0.3745
b6	1.49266	1.97919	0.2458
b7	1.11610	1.63245	0.3163
b8	0.71402	1.89604	0.6234
b9	0.11820	1.51709	0.9221
b10	0.35950	1.17430	0.6939
b11	0.85102	1.13196	0.2482

Table 7 showed factor covariance matrix. The result indicate significant correlation between hearing and experience (r=.47 with p <.0001).

Table 7. Factor Covariance Matrix for bullying, LBGTQ Youth study

Factor Covariance Matrix: Estimate/StdErr/t-value/p-value		
	hearing	**experience**
hearing	1.0000	0.4688 0.0270 17.3799 <.0001
experience	0.4688 0.0270 17.3799 <.0001	1.0000

Figure 2 showed the unstandardized loading path from items to two latent factors (hearing and experience). The figure also indicated the goodness fit in the model, which is not quite fit. All path were significant.

Figure 2: Unstandardized Solution for bullying, LBGTQ Youth study

Unstandardized Solution

Coefficient alpha reliability calculated to assess the scale reliability. Alpha coefficient reliability were .88, .87, and .84 for total bullying, hearing, and experience; respectively.

CONCLUSION

Confirmatory factor analyses used to examine and confirm these two factors for bullying. Confirmatory factor analysis used several statistical test to examine the fit of model. The SAS ®⁶ PROC FACTOR and CALIS (Covariance Analysis of Linear Structural Equations) procedures support exploratory and confirmatory analysis. Our results indicated the model was not completely fit and could improve. However, our result revealed all items loaded correctly into two latent factors. Coefficient alpha reliabilities calculated to assess the scale reliability. Alpha coefficient reliabilities were .88, .87, and .84 for total bullying, hearing, and experience; respectively.

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Contact Information

Your comments and questions are valued and encouraged. Please contact the authors at:

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ACKNOWLEDGEMENT

Appendix

SAS Syntax

```
**** Data Manipulation     ***;
data one;
set sclgbt.sclgbtall;
```

```
run;
data two;
set one;
**** reversing code for the items   ***;
array itema outp -- outa pot -- otherdrug dbother -- dgoing;
   do over itema;
     if itema = 5 or itema=6 then  itema=.;   end;

array itemb tfeeluniq -- tfeelpart partrw -- partro;
   do over itemb;
     if itemb = 6 then itemb=.;   end;
array itemc suicidea;
   do over itemc;
     if itemc = 3 or itemc=4 then  itemc=.;   end;

tout = sum (of outp outbs outfam outf outc oute outr outn outa);
tq44 = sum (of schoolneg schoolanti schoolsex schoolrac schoolmas schoolfem
      schoolstaff schoolfear schoolhar schoolvio schoolelec);
thear = sum (of schoolneg schoolanti schoolsex schoolrac schoolmas schoolfem
      schoolstaff );
texp = sum (of  schoolfear schoolhar schoolvio schoolelec);

label
   tout = "parent child relationship"
         tq44 = "Total scale/ q44"
         thear =" Hearing/ subscale q44"
         texp  =" experience / suscale q44"            ;
run;

data three;
set two;
array iteme schoolneg schoolanti schoolsex schoolrac schoolmas schoolfem
      schoolstaff schoolfear schoolhar schoolvio schoolelec;
array itemf b1- b11;
   do over iteme;
     itemf = iteme; ;   end;
label
b1=" hearing gay used in a negative way"
 b2="bhearing other anti-LGBT remarks "
 b3="hearing sexist remarks"
 b4="hearing racist remarks"
 b5="hearing comments about not acting masculine enough"
 b6="hearing comments about not acting feminine enough"
 b7="hearing biased comments from teachers or other school staff"
 b8="experiencing fear of being physically harassed (e.g. verbal threats)"
 b9="experiencing actual physical harassment (e.g. pushed or shoved)"
 b10="experiencing actual physical violence (e.g. punched, kicked, or injured with a weapon)"
b11="experiencing some form of electronic harassment (e.g. cyber bullying)";
format b1-b11 b1f.; run;

Ods rtf; ods listing close;
%macro corr (q);
proc corr nocorr alpha nomiss data=three;
    var   &q;;
    title ' Reliability coeffcient';
         title2 'SCLGBT project';
%mend corr;
%corr ( b1-b11);
%corr ( b1-b7 );
%corr (  b8-b11);
run;  ods rtf close;  ods listing;  quit; run;
```

```
*** Calis ***;
Ods rtf; ods listing close;

proc calis data=three  modification ;
    factor
      hearing   -> b1-b7  = load1-load7,
      experience   -> b8-b11  = load8-load11;
          pvar
      hearing experience = 2* 1.,
      b1-b11 = errvar1-errvar11;
                      pathdiagram diagram=initial notitle;
title ' Confirm Factor analysis';  title2 'SCLGBT project';     run;

proc calis data=three  modification plot=pathdiagram residual;
    factor
      hearing   -> b1-b7  = load1-load7,
      experience   -> b8-b11  = load8-load11;
          pvar
      hearing experience = 2* 1.,
      b1-b11 = errvar1-errvar11;
                    *pathdiagram diagram=initial notitle;
title ' Confirm Factor analysis';     title2 'SCLGBT project';     run;
ods rtf close; ods listing; quit; run;
```