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## AN EXPLORATION OF THE VALIDITY OF INFERENCES MADE FROM THE INTERPERSONAL AND SOCIAL EMPATHY INDEX (ISEI)

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### Abstract

Social empathy is the ability to understand other people by perceiving or experiencing their life situations, thus providing an opportunity to gain insight into social inequalities. Institutions of higher education have unique opportunities to engage students in socially just educational conversations that challenge negative social biases of others who are not like them. The current study investigated the validity of the inferences made from the Interpersonal and Social Empathy Index (ISEI), a common tool used to explore levels of empathy among college students. A comparison was then made between the original constructs described by the instrument developers (Segal et. al., 2013) and the constructs present in the data collected for this study. Factor analysis results indicated a structure different from that proposed by the instrument developers. While the number of latent factors in the current study is the same as those proposed by the original instrument developers (4), items composing the factors were different. Consequently, subscale scores calculated using developer suggested items may not be the best representation of latent constructs related to empathy.

Keywords: empathy, interpersonal empathy, social empathy social justice, factor analysis

Social empathy is an ability to more deeply understand people by perceiving or experiencing their life situations, thereby providing insight into structural inequalities (Seagal, 2009). Institutions of higher education provide opportunity rich environments that challenge students' intellectual and personal growth. As such, college is an ideal place to explore, develop, and challenge existing prejudice. Community colleges by nature foster diversity of students because of the open access to education. Therefore, it seems intuitive community colleges could be a model for building a foundation for empathy, contextual understanding, and social responsibility among students. In fact, research suggests social justice education while in college affects attitudes and perceptions of racial prejudice among students (Jessop & Williams, 2006).

### Need for and Purpose of the Study

Individual empathy is not sufficient to motivate communities towards social justice. A more effective way to change long standing structural inequities requires providing people with opportunities to gain deep contextual knowledge and have experiences that create empathetic insights into the lives of people who have been oppressed. As part of the larger effort to change long standing structural inequalities and create empathetic insights, an instrument measuring interpersonal and social empathy levels is necessary. Such an instrument would aid in the measurement of growth, or lack thereof, of participants in levels of interpersonal and social empathy, both necessary components for empathetic insights. Once such instrument, the Interpersonal and Social Empathy Index (ISEI) purports to measure participants' interpersonal and social empathy levels (Segal, Cimini, Gerdes, Harmon & Wagaman, 2013). However, the inferences made from ISEI scores have never been assessed for construct validity, using a sample of community college students. The purpose of the current study was to investigate whether the ISEI is an appropriate instrument for

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use in a larger program designed to promote increased levels of social empathy needed to encourage greater social responsibility of students at the community college. Social justice education infused into core curriculum can possibly impact students' perceptions of empathy at a two-year college. However, an appropriate instrument is necessary to help determine whether social justice education indeed promoted changes in student interpersonal and social empathy levels. Our study investigated whether the constructs presented by Segal et. al. (2013) as present in the ISEI, are also valid for use for our sample (n= 98) of community college students. See Table 1 for details regarding the sample.

Table 1 Demographic Information for Participants (n= 98)	
Gender	Ethnicity (Self-Reported)
Male (n=25)	Caucasian (n=39)
Female (n=73)	Hispanic (n=38)
	Black (n=21)

Instrumentation

The Interpersonal and Social Empathy Index (ISEI) is an instrument purporting to measure trait empathy, with elements of interpersonal and social empathy (Segal et.al., 2013). For the 15 items of the ISEI, items 1-10 reflect interpersonal empathy, and are divided between three components – Items 2, 3, 5, 9 Cognitive Empathy (COG), Items 1, 6, 8 Affective Response (AR), and Items 4, 7, 10 Self-Other Awareness (SOA): Items 11-15 assesses Macro Perspective-Taking (MPT), which reflect social empathy. The Likert Scale used ranges from 1 (never) to 6 (always) with choices 2-5 in between.

Construct Validity

One method often used to help identify and measure constructs is exploratory factor analysis (EFA) (Henson & Roberts, 2006). For the current study, EFA was used in an effort to investigate which constructs composed the data collected using the ISEI. A comparison was then made between the original constructs described by the instrument developers (Segal et. al., 2013) and the constructs present in the current data.

Analysis and Results

Results of the exploratory factor analysis of the fifteen items of the ISEI revealed differences in construct composition, in comparison to the previously proposed factor structure (Segal et.al., 2013). Ultimately, a four factor solution was selected as the best fit for the current data. However, while the selected four factor solution was also present in the instrument development process (Segal et.al, 2013), individual items composing the factors were different. See Tables 2 and 3 for a comparison of the factor/item structure presented by Segal et.al. (2013) and the factor/item structure present in the current data.

Table 2 Original Structure of the ISEI/Factor Composition Factors Presented by Segal et. al. (2013)			
MPT	COG	SOA	AR
Q11*, Q12*, Q13, Q14, Q15	Q2, Q3, Q5*, Q9*	Q4, Q7*, Q10*	Q1, Q6*, Q8
*indicates item loads on a different factor for the current study data			





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Table 3  
Structure Matrix for the Current Study

	Factor			
	1	2	3	4
Q1	-.258	.755	.183	-.411
Q6	.348	.369	-.669	.092
Q8	.303	.775	-.347	.056
Q11	.390	.238	-.503	-.662
Q12	.226	.584	-.399	-.439
Q13	.596	.282	-.709	.153
Q14	.222	.035	-.806	-.013
Q15	.481	.103	-.666	-.184
Q2	.815	-.050	-.343	.237
Q3	.709	.371	-.264	-.052
Q5	.367	.728	-.093	-.142
Q9	.720	-.018	-.484	.231
Q4	.395	-.068	-.327	.615
Q7	.407	-.181	-.599	-.088
Q10	.771	.252	-.415	-.275

Discussion and Conclusion

As community college students develop the ability to be aware of and be sensitive to the perspectives of those different from themselves, the culture of the college may be more inclusive. The consequences of a more inclusive college environment, particularly for historically marginalized students, can be monumental, including an increase in retention and graduation rates (Roberson & Mason, 2007).

Results of the exploratory factor analysis indicated that while four factors seem to be present in the current data, as the original developers indicated, the item composition of the factors was different for this sample of community college students. Consequently, for this sample, the originally computed construct or factor scores would not best represent the factors in question; the score inferences would not be valid.

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