Development and Validation of A Marginality Index for Nursing Students

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Disclosure

The author does not have any conflict of interest to disclose.

There was no sponsorship or commercial support given to the author for this study.

Problem Statement

Minority nursing students experience significantly higher attrition rates when compared to non-minority students.

1. Isolation from peers and the academic institution

2. Pressure to conform

3. Lack of mentor/ role model

4. Discrimination/microaggressions

5. Perceived lack cultural competence

(Englund, 2018, 2019; Kronsburg, Bouret, & Brett, 2018)

Marginalization Defined

"A process that results in groups being peripheralized on the basis of such variables as a person's identity, experiences, associations, and environments."

(Hall, Stevens, & Meleis, 1994, p. 24)

State of the Science

The Koci Marginality Index (KMI) was the only marginality scale in the extant literature.

- Abused women

- Developed from a number of subscales found in the Minnesota Multiphasic Personality Inventory (MMPI -2)

Purpose of Study

To develop a marginality tool specific to the domain of nursing education that evaluates the institutional, social, and personal factors that influence marginality.
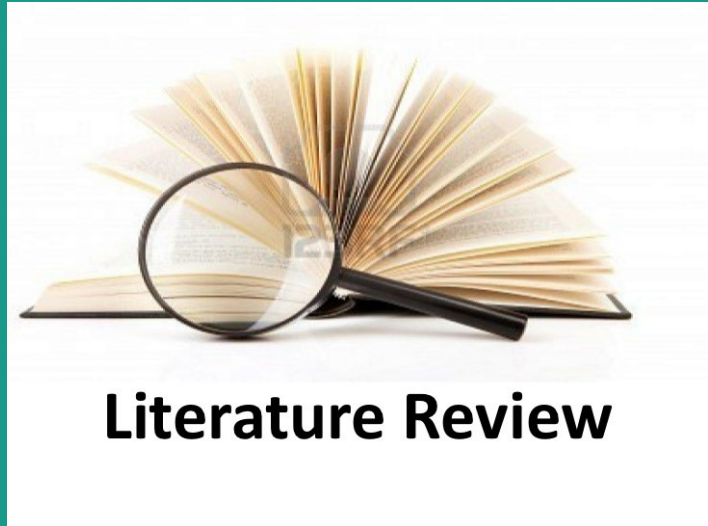
Theoretical Framework

Seven Subconcepts of Marginalization	
Intermediacy	Tendency of human-created boundaries to act as both barriers and connections
Differentiation	Maintenance of these boundaries so as to preserve the distinct identities of individuals or groups
Power	Bidirectional but also hierarchical in that it dissipates as it extends towards the margins of society
Secrecy	A lack of power causes those on the periphery to use secrecy to conceal any differences and avoid betrayal
Voice	Ideas are expressed in the language of the majority, resulting in the devaluation of the voices of the marginalized
Reflectiveness	An intense introspection occurs while one constantly relives and analyzes social experiences
Liminality	An individual's altered and intensified perceptions of time, worldview and self-image

Estimating Content Validity

- Development stage

  - Domain identification

    - Thorough review of extant literature

  - Item generation

    - Initial pool of 7-8 items per subconcept

      - 57 total items

    - Four-point Likert scale

Literature Review

Estimating Content Validity (Cont'd)

- Judgment – quantification stage

    - Five content experts

        - Expertise in marginalization

        - Provided general description of scale as well as a definition of each subconcept

    - Seven items had CVI of .63 and were eliminated from the instrument

    - The CVI for the total instrument after revisions was .93

Psychometric Evaluation of Tool

- Convenience sample (n = 323)
  - Baccalaureate nursing students enrolled at a university in Wisconsin
  - Inclusion criteria
    1) Currently employed part-time or full-time in undergraduate nursing program
    2) 18 years of age or older
    3) Able to read, write and speak English

Definition

The term "minority" was defined as a baccalaureate nursing student who met any of the following criteria:

01 | belongs to an racial/ethnic minority

02 | is male

03 | is a sexual minority

Table 1: *Demographic Data*

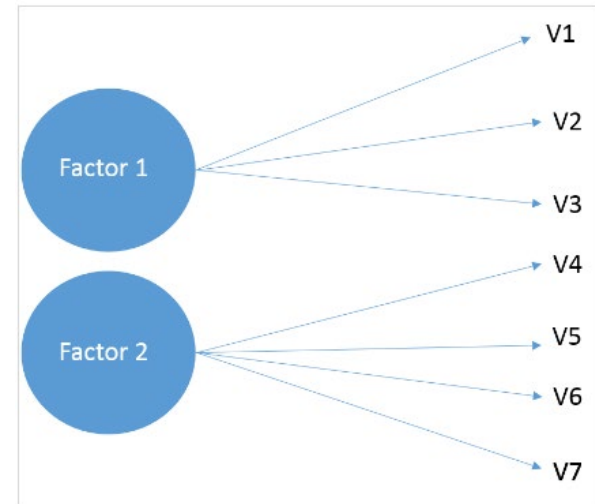| Demographic Variable	n (323)
Gender	
Male	46 (14.2%)
Female	277 (85.8%)
Age	
18-24	266 (82.4%)
25-33	39 (12.1%)
34-41	15 (4.6%)
42-49	2 (0.6%)
50+	1 (0.3%)
Ethnicity	
White or Caucasian	276 (85.4%)
Hispanic or Latino	9 (2.8%)
Black or African American	11 (3.4%)
Asian/ Pacific Islander	27 (8.4%)
Native American	
Sexual Orientation	
Heterosexual	308 (95.4%)
Lesbian	5 (1.5%)
Bisexual	9 (2.8%)
Queer	1 (0.3%)

Wisconsin

Results

- Twelve items were removed from the tool due to inter-item correlations of < .4
- All item-total correlations were above .30 threshold
- The Kaiser-Meyer-Olkin measure was .92
- Bartlett's test of sphericity, $\chi 2\,(1225, n = 323) = 8058.1, p < .001$ supported the assumption that the items were correlated

Exploratory Factor Analysis

- Criteria for extraction:
    1) an eigenvalue of 1.0 or greater
    2) a factor loading score of .4 or greater
    3) a minimum of three items loading to a factor

    - **Criterion 1: Two Factor Model**

        - Factor 1 : 12.01

        - Factor 2 : 1.29

Field, 2017

Exploratory Factor Analysis (Cont'd)

- Criterion 2: Factor loading

  - .40 criterion

  - 19 items had a loading factor below .40

- Criterion 3: Minimum of three items loading to a factor

  - 15 items loaded heavily to first item

  - 4 items loaded heavily to second item

Table 2: *Pattern Matrix for the Two-Factor Model*

Brief Description	Factor 1	Factor 2
Institutional access	.832	
Scrutiny from peers	.832	
Institutional support	.876	
Harsh criticism	.875	
Expression of ideas	.817	
Sense of belonging	.870	
Strong connections	.788	
Voicing of opinions	.819	
Experience of discrimination	.845	
Genuine relationships	.815	
Opinions are valued	.828	
Access to mentor	.824	
Individuality	.747	
Judged as inferior	.855	
Distance from peers	.817	
Effort for success		.805
Isolated from peers		.846
Personal contributions		.804
Perceived visibility		.732

The two factors explained 70% of the total variance.

Englund Marginality Index

- Cronbach's alpha for the revised tool was α = .90
- The range for the revised 19-item scale is 19 to 76
- Mean score of 40.14 (SD = 11.60)
- The average scores obtained on the EMI were moderately negatively skewed (j = .83)

- The findings from this study demonstrate that the EMI is a valid and reliable measure of marginality

- Test-retest reliability obtained using Pearson's coefficient was r = .92

Conclusion

Students who reside in racially homogenous geographical areas and attend nursing programs with predominantly White student and nursing faculty populations may feel increased levels of marginalization.

Thank you!

Questions?

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