Research Article

Cultural adaptation considerations for HBCU student mental health services: An exploratory report

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Abstract

Recent reports reveal that more university students arrive on campus with pre-existing psychological disabilities and concomitant psychotropic medication use. With all new medications the importance of pharmacotherapy services becomes more critical, especially in health-disparate, underserved populations that may additionally have varying perceptions of the role and benefit of medications. This was an exploratory study to improve understanding of mental health needs and help-seeking behaviors among college students at a Historically Black College and University (HBCU), and to identify considerations for cultural adaptations to community-based psychopharmacotherapy services. For this study spirituality and attitudes to mental health, medications and counseling were explored. Data was collected by web-based surveys, student focus groups, depression/suicide vulnerability screenings, and overview of existing campus services. Results suggest higher levels of depression and religiosity, higher satisfaction level with off-campus mental health providers, difference in views of medication helpfulness with religiosity level, no difference in views on counseling helpfulness or use of academic versus non-academic resources in times of distress. Further study is warranted. Considerations for service development include destigmatization and trust-building strategies, screening and referral settings with access or referral to spiritual care, collaborative practice agreements (CPA), medication therapy management (MTM), health center surveys, peer support groups, and medication counseling for comorbid conditions (e.g. diabetes, HIV/AIDS). Greater understanding of attitudes and resources turned to in times of distress can help direct resources and train personnel who identify student need, intervene, and extend access to comprehensive mental health service resources in community.

Keywords: cultural adaptation, spirituality, psychiatry, mental health services, MTM

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1. Introduction

National studies, Disability Affairs, Counseling and Health Centers report more university students arriving on campus with pre-existing psychological disabilities, more students seeking services, more psychological severity and higher psychotropic medication use over the past decade. A recent national survey of directors of campus mental health servicesrevealed a significant increase in severity of psychological problems among their students [1,2]. With increasing Federal Drug Administration (FDA) approved medications (ACCP/AMCP) [3,4], prescription drug use and misuse. Perceptions on mental health and medication therapy

reportedly vary significantly among ethnic groups. It has been found that African Americans (AA) had lower acceptability of prescription medications [5].

Cultural adaptation of mental health services has been described as a process of modifying service delivery to make it culturally competent [6].Such adaptations may occur at the administrative, service delivery and clinician levels, and can facilitate improved mental health care by incorporating evidence-based strategies supported by research to justify their application [6-10].Cultural adaptation is typically an iterative process of identifying need, gathering information that is used to design adapted interventions that can be applied to health service delivery [11].

Cultural competence is an active state involving the nurturing of inclusive thoughts as opposed to negative proclivities that support unfair treatment as a result of pre-disposition tendencies [12].A health professional who develops cultural competence will demonstrate attitudes and behaviors that facilitate working effectively with people of different cultures [13]. Culturally competence in mental health care is critical in addressing mental health disparities, as outlined in the US Surgeon General's 2001 report [13] such as deficits in access, quality and quantity of mental health services to minorities and minority underrepresentation in mental health research [14].It involves the integration and transformation of knowledge, information and data about individuals and groups of people into specific clinical standards, skills, approaches, techniques and marketing programs that match individual or group culture and increasethe quality and appropriateness of mental health care and outcomes [6,12]. Ethnic and racial differences exist reportedly in how mental illness is viewed, how people recognize and communicate distress, seek help and engage in treatment; taking this into account in treatment is therefore beneficial [6].

We conducted an exploratory analysis to improve understanding of mental health needs and help-seeking behaviors among college students at a Historically Black College and University (HBCU), and to identify possible considerations for cultural adaptations to campus and community-based psychopharmacotherapy services. Our key concepts and questions as we embarked on our project were: 1) Student mental health service needs are important and are increasing, 2) Cultural adaptation of psychosocial interventions is beneficial, 3) Can we gather and disseminate any information to adapt existing servicescreenings and interventions that will benefit psychopharmacotherapy service needs and overall outcomes? 4) Spirituality, attitudes to mental health, medications and counseling were explored for future

adaptation strategies that may be beneficial on campus and in the wider mental health community.

Methodology

University Institutional Review Board (IRB) approval was obtained to conduct the study. Source data for this exploratory analysis comprised of the following: 1) web-based survey: 2010 Healthy Minds Study (HMS) web-survey, including Mental Health Continuum (MHC), the nine item depression scale of the Patient Health Questionnaire (PHQ-9), Structured Clinical Interview for DSM-IV (SCID), and the Duke University Religious Index (DUREL) rating scale data and open-ended questions; also reviewed was existing data of 2) student focus groups, 3) depression/suicide vulnerability screenings, and 4) brief overview examining existing campus services. The HMS survey was an annual, multi-centered, prospective, cross-sectional web-based survey [15] which in 2010 spanned 26 colleges and universities. A total of 89,065 students were randomly selected for the web-survey nationally requesting students to respond to questions taking about 10-20 minutes to complete. Once a student began the survey questionnaire, they had 14 days to edit their responses if necessary and to complete the survey. Survey contacts occurred between February – April 2010, and timed if possible to avoid the first two weeks of the term the last week of the term, and any major holidays (e.g. Spring Break). Each participating school provided a randomly selected list of up to 4,000 currently enrolled students over the age of eighteen as a study sample. Survey data was processed using SPSS v.16.0, SAS v.9.1.3 and evaluated using Chi Square model.

Existing source data was reviewed for the HBCU study site from the efforts of its Suicide Prevention Action Group (SPAG) originally organized in 2005 [16] by the Department of Psychiatry in collaboration with the University Counseling center to develop key strategies for suicide prevention, intervention, postvention and awareness for those impacted adversely by the effects of violence, depression and suicide. Activities of the SPAG include provision of QPR (Question, Persuade, and Refer) training on campus as well as At-Risk training for faculty to help facilitate the "gatekeeper" role to recognize warnings of distress and suicide, offer hope and help.SPAG's primary focus is to bring educational awareness to those impacted adversely by the effects of violence, depression, and suicide in an effort to decrease threatening behaviors that can lead to poor academic performance and academic failure [16].A quick overview of available mental health service resources at the HBCU site was also conducted.

HMS Survey

Of the 89,065 students who were randomly selected for the study nationally, 24,932 (27.4%) responded to the survey. At the HBCU study site, 4,000 students were randomly selected, of which 135 (3.4%) responded as compared to the 27.4% (24,392) overall national response rate. Of the HBCU site responders, 113 (83.7%) were AA, 103 (76.3%) female, 28 (20.7%) male, 71 (52.7%) students between 18-21 years old, 42 (31.1%) between ages 23-30 years old, 84 (62.2%) were in pursuit of their bachelor's degree and 23 (17.0%) in pursuit of their master's degree (Table 1).

This HBCU study population had significantly higher average levels of general depression, depression impairment, academic impairment from mental health, frequency of self-injury, and obesity (BMI>=30) as compared to the national sample. Compared to other colleges, the HBCU studyinstitution also scored significantly higher than average for the measure of perceived public stigma" and comparatively lower than average satisfaction with "respect for privacy concerns" and "knows where to go for professional help" measures. Significantly higher averages for responders in the HBCU study group as compared to nationally found satisfaction with non-university mental health providers. Nevertheless, where there are mental health problems affecting academic performance, a significantly greater average for the HBCU study group would talk to faculty members for support.The HBCU study group also had significantly higher responders who would seek religious counselor or other religious contact, or a support group, or contact no one if experiencing emotional distress rather than seek professional mental health services.

Results

Very religious and fairly religious HBCU survey responders' perceptions on the helpfulness of medications and counseling are summarized in Tables 2 and 3 and Figure 1. In response to the survey question "how religious would you say you are", HBCU responders polled significantly higher than average in choosing "very religious" or fairly religious" as compared to other universities in the HMS survey. Ninety-six (71.1%) considered themselves to be very or fairly religious, 25 (18.5%) not too religious, and 10 (7.4%) not religious at all.

When posing the question "How helpful on average do you think medication is when provided competently", there was a statistically significant relationship with the very religious students ($X^2 = 10.1$, p=0.017) and the fairly religious students ($X^2 = 10.0$, p=0.018) on their views of the helpfulness of medications. Of the 36 (26.7%)very religious students, 6 (16.7%) considered medication as very helpful, 12 (33.3%) quite helpful, 16 (44.4%) a little helpful, and no responses rated medications as not at all helpful. Of the 54 fairly religious students, 10 (18.5%) considered medications as very helpful, 13 (24.1%) quite helpful, 16 (29.6%) a little helpful and 15 (27.8%) not at all helpful. Of the 24 not too religious students, 2 (8.3%) claimed medications were very helpful, 4, (7.4%) quite helpful, 14 (58.0%) a little helpful and 4 (16.7%) not at all helpful. Lastly, of the 10 not at all religious students, 1 (10%) believed medications to be very helpful, 3 (30.0%%) quite helpful, 4 (40.0%) a little helpful and 2 (20.0%) not at all helpful.

When asked "how helpful on average do you think therapy or counseling is when provided competently", there was no statistically significant relationship between religious status and HBCU responder views on therapy. In performing an odds ratio, however, the odds of the very religious group believing that counseling is very helpful were five times greater than belief in the helpfulness of medication. But with the fairly religious group, there was no perceived difference in the helpfulness of counseling vs. medication. Eighteen (75%) students from the very religious group considered counseling to be very helpful, 11 (32.4%) quite helpful, 5 (14.7%) a little helpful, and none believing counseling to be not at all helpful. For the 54 students in the fairly religious group, 19 (35.2%) believed counseling to be very helpful, 25 (46.3%) quite helpful, 8 (14.8%) a little helpful, and 2 (3.7%) not at all helpful. Of the 24 not too religious students, 9 (37.5%) believed counseling to be very helpful, 9 (37.5%) quite helpful, 6 (25%) a little helpful, and none believed counseling to be not at all helpful. Lastly, of the 10 not at all religious students, 4 (40%) believed counseling to be very helpful, 4 (40.0%) quite helpful, 2 (20.0%) a little helpful, and none selected not at all helpful.

Among the very religious HBCU student category, when asked "if you were experiencing serious emotional distress, whom would you talk to about this"?,32 out of 36 students chose non-academic sources: friends, family, significant other, religious counselor, roommates, support groups, or other non-clinical sources, while 44 out of 60 students selected non-academic sources from the fairly religious group, 21 of 25 students from the not too religious group, and 9 out of 10 from the not religious at all group. Surprisingly, 16 (12.2%) out of 131 students who responded to this question claimed they spoke to no one regardless of religious status, however the fairly religious group had a significantly higher number of students (10[62.5%]), 1-sided p=0.096) in this category compared to other religious status groups. For this group

who would not speak to non-academic sources, we were interested in identifying whether they spoke to academic sources (a professor from class, academic advisor, another faculty member, teaching assistant, student services staff, Dean of Students or Class Dean), should they be faced with a mental health problem affecting their academic performance. Out of the 36 students who reportedly were very religious, 22 sought after academic sources, as well as 37 of 60 students in the fairly religious group, 14 of 25 in not too religious group, 8 of 10 in the not religious at all group. Would the students who sought help in non-academic settings seek out academic sources also? Of the 106 students who would speak with non-academic sources and 81 with academic sources, 78 students total would speak with both academic and non-academic sources.

Additional information gathered revealed the following existing campus mental health resources besides the SPAG efforts: University Counseling Center (UCC), also the Psychiatry Department for inpatient services and university hospital outpatient clinic, and outpatient services provided through the faculty practice plan (FPP). Individuals seen in the outpatient setting typically have physician medication maintenance visits and are handed prescriptions to take to a pharmacy of choice; there are also nurse administered psychotropic injection visits. Based on the overview of mental health resources, strategies to meet student need and satisfaction include expanding service hours and clinician accessibility; resources for expanded medication adherence and outcome monitoring; spiritual assessment and care resources, and assessment of impact if any of spiritual beliefs on medication taking. Additionally, innovative settings for mental health screening, strategies for destigmatization and trust-building were also indicated. The SPAG-coordinated Suicide Prevention Evaluation, Awareness and Knowledge Surveys (SPEAKS) given to individuals receiving campus QPRtraining indicated increased knowledge of suicide prevention resources. Figures 2 and 3respectively illustrate conceptual models for helping students in distress and theiterative cultural adaptation process with possible strategic intervention points.

Discussion

While college campuses are a niche in society, the ideas and attitudes toward mental health are yet a projection of society's broader perspective. Mental disorders are reportedly as prevalent among college students as same-aged nonstudents [17], thus adaptation strategies may be just as applicable in community as on campus. Furthermore, as this study campus' population reports help-seeking among non-professional, non-campus resources, extending access and service adaptation are just

as important in non-academic settings. Across the wider national HMS survey, nonresponders were found to more likely to be African American. Attitude to mental illness often includes one of stigma and prejudice; attitudes towards the necessity of seeking mental health care can depend on perceptions that range from acceptability to outright repudiation. According to HMS 2010 survey data 68.3% of student responders agree that "most people would think less of someone who has received mental health treatment". The low HBCU survey response rate in the present study may not be unusual andin itself could possibly result from stigma and distrust.The open-ended questions also revealed challenges with time-management balancing classes and paid work, andmistrust in the ability to keep the survey information confidential. This underscores the need for innovative methodologies for trust-building, discreet data collection and promoting study participation.

While the significance of student mental health to higher education administrators and researchers is evident, also notable is the paucity of research investigating the mental health and service utilization of college students of African descent. Barksdale and Molock looked at norms and help-seeking behavior using culturally contextualized approaches; although the study was not implemented at an HBCU. Barnes and colleagues implemented at the HBCU study site an SPAG and awareness initiative that utilizes student peers and faculty through education as critical players for intervention by facilitating their capacity to demonstrate sufficient knowledge about depression, distress, suicide and how to assist [18]. African Americans are reportedly significantly less likely to seek mental health services from professional mental health providers (e.g. psychologists or psychiatrists), compared to Caucasians, despite similar prevalence rates [18-20]. Stigma and shame have been found to bemajor deterrents to mental health service utilization among minorities [13].It's also been theorized that increasing suicide rates among black men could be attributed to the health-care establishment overlooking the poor and unfair treatment of African American community [16].Research also suggests that African Americans prefer to seek guidance for psychological concerns from clergy, non-mental health professionals, family and friends more frequently than fromprofessional mental health resources [18, 21, 23]. They are also less likely to utilize outpatient mental health services compared to Caucasians [18, 24, 25].

Service adaptations which seek avenues for detection, referral and treatmentof mental health issues would be a necessary solution. Spirituality is one such avenue to consider because of its significance to many African American communities. It also holds potential benefit as a

coping mechanism that can promote positive health attitudes, decisions, physical and mental well-being [26]. It can help identify barriers to treatment adherence and medication adherence [27, 37]. Spirituality is one of various assessment needs included in Joint Commission Standards for Cultural Competence [28,29].Follow-up 2011 freshman data at the HBCU study site also appeared to be consistent with HMS survey responses. From a sample of 301 freshman students 98% of which were African American, nearly 60% attended religious service frequently, 48% discussed religion frequently, 57% felt overwhelmed by all they had to do academically occasionally and 32% frequently, while 44% felt depressed occasionally, 9% frequently; and 49% asked a teacher for advice after class occasionally and 44% frequently. There is a considerable proportion of students who profess religiosity to be significant to their lives, there are students experiencing some level of stress, even depression, and those who would pursue help-seeking within and outside the academic setting.

Jimenez and colleagues reported that when they asked in a survey what participants thought would help them get better, a greater proportion of African Americans responded that they would seek spiritual advice to help them with a mental health problem [30]. This is further compounded by tendency to mistrust mental health professionals. Mental health screening in medical or spiritual care settings might be called for. Holding a positive attitude towards seeking mental health has been found to be a positive predictor of help-seeking behavior. In collectivistic societies, interpersonal relatedness and strong kinship may play a significant role in an individual's attitude toward perception and control over behavior [31].Perhaps the first step towards mental illness destigmatization is establishing a supportive environment in which an individual would be more inclined to seek help.

Destigmatization and trust-building strategies considered for development include positive social marketing tools and slogans, mental-health clinician sharing or self-disclosure regarding mental health experiences, and screening settings where vulnerable individuals don't feel isolated or targeted such as anonymous computerized self-assessment tools accessible online and on strategically located designated campus computers, and peer-led support groups. Also considered important was assessment of students both individually and collectively of who constitutes what could be referred to as astudent's "academic family" [28] whom students would most likely draw support from and could be key in the detection of distress. Development of a college-specific Mental Health Policy with oversight of university student service administrators, legal counsel and other relevant administrators was also considered to enhance processes for early detection of mental health problems that could impact academic performance and facilitate student capacity to seek help and recourse with dignity and privacy.

The comparisons between religious groups and their views on the helpfulness of medications revealed a significant difference between the very religious and fairly religious group; all of the former believed medications to at least confer a little helpfulness when used competently, whereas 15 (27.8%) of fairly religious students thought medications to be not helpful at all. The other less religious groups had a percentage of their group also believe in the non-helpfulness of medications, though not as great as the fairly religious group. It is difficult to interpret why very religious students would differ in the power of medication for healing. It is worth noting this trend, however, as this belief could affect medication adherence in mental health treatment. Koenig and colleagues note that an individual's belief, attachment, and relationship to God can bea personal, inner (intrinsic) religiosity source, evidenced by public practices (e.g. house of worship attendance), private practices (e.g. prayer), religious commitment, experiences and coping. These in turn impact life choices, decisions, and health behaviors (e.g. medication taking) [26].

The comparison of perceived helpfulness of counseling versus medication, though not statistically significant, did reveal an interesting odds ratio. The very religious group was five times more likely to believe in the helpfulness of counseling over medications. It may be important to consider providing campus counseling information in places of organized worship, and sharing information with religious counselors who could refer students to campus counseling centers for additional help. Promoting strong counseling center services and community-based options with culturally adapted interventions may prove to be more comfortable for students reluctant to use medications. Furthermore, incorporating screening and referral strategies such as health center surveys, spiritual care assessments and care referrals into routine and/or expanded outpatient visits should be helpful.

Campus and Community Pharmacotherapy Services

Collaborative practice agreements (CPA), medication therapy management (MTM)services can extend access to psychiatric pharmacotherapy services in collaborative, multidisciplinary settings and improve capacity to identify and address medication-related issues in minorities. Examples of such potential issues include spiritual beliefs about mental illness and medication taking; spiritual

practices to be considered while on pharmacotherapy (e.g. fasting, faith healing, dietary habits or restrictions); trust issues with the healthcare system; use of complementary and alternative medicine strategies; cytochrome P-450 metabolism variations of various psychotropic drugs; health insurance, transportation and medication cost considerations for psychotropic adherence; mental health literacy, language, and cognitive support needs for medication education and counseling; medication safety and toxicity considerations as well as screenings and referrals for depression/suicide vulnerability and at-risk populations. Community pharmacy services providing specialty care to psychiatric patients can potentially enhance African American use of outpatient services and allow opportunity to make the most of home-delivery services offered by many independent pharmacies even as a collaborative contribution to the Medical Home Model. The potential for collaboration expanding service access is illustrated in the District of Columbia for example, where council member David Catania proposed on January 17, 2012, that pharmacists gain expanded authority to direct apatient's drug treatment to mitigate the effects of an emerging physician shortage [31]. Among public testimony submitted in support of this proposal was the request to consider incorporating a mechanism for expanded privileges for the administration of injectables [33], which could include long-acting psychotropic injectables, especially where there are challenges with adherence or transportation.

Exploring associations and strategies in managing comorbid conditions prevalent in this population would also be helpful. For example, in the HBCU study population, there were significantly higher average levels obesity (BMI>=30) compared to the wider national HMS survey sample; African Americans also have higher risk for diabetes. Several psychotropics such as the second generation antipsychotics may increase that risk. In the Washington D.C. area, at least 3% of adult residents are reportedly known as HIV-infected (HIV+) with inner city African Americans being disproportionately affected and underserved in accessing mental health care for co-occurring psychiatric disorders [7].Furthermore, in one study the role of religion was explored in patients' treatment decisions with antiretrovirals (ARV) and in coping with HIV. Patients who had ever discontinued ARV gave reasons such as teachings and prophecies from religious leaders, biblical healing scriptures, and testimonies from those who had already stopped ARVs and professed that they had been healed [34]. Those who had never stopped ARV therapy reportedly had either received counseling from multiple sources, improved physical health accounted for by ARVs, beliefs that medications are one of innumerable ways in which God

heals or that ARV nonadherence may be inappropriately testing God. High religiosity reportedly helped with coping with HIV/AIDS [34] as it potentially can with mental illness [26,27]. Researchers concluded that when high religiosity is a barrier to adherence, adherence counseling can draw on the positive experiences of those who've sustained good adherence to ARTs [33].Religious practices may support positive health decisions and adherenceand could be encouraged in community care settings [37].

Pharmacists have long been considered trusted professionals and accessible in community pharmacy settings; this may offer unique opportunity for promotingtrust-building. African Americans reportedly have been less likely to utilize outpatient services [18, 24, 25, 36] incorporating community pharmacies and pharmacist clinics could be help overcome this. Besides routine medication counseling, community specialty pharmacies could provide another reinforcement avenue for mental health, suicide prevention, spirituality screening, assessment and referral, in collaboration with existing multidisciplinary efforts. Incorporating such sites into the design of collaborative care models is worth consideration and formal evaluation.

Table 1. Descriptive statistics of HBCU study sample (adapted from Kim et al, HMS 2010) [35]

Demographics	Frequency at HBCU Study site[*](N= 135)
Missing	4 (3.0%)
Age	
18-21	71 (52.7%)
23-30	42 (31.1%)
Others	22 (16.3%)
Gender	
Male	103 (76.3%)
Female	28 (20.7%)
Race	
Black	113 (83.7%)
Others	22 (16.3%)
Academic Level	
Bachelor's	84 (62.2%)
Master's	23 (17.0%)
Others	28 (20.7%)
"How religious would you say you are"	36 (26.7%)
Very religious	60 (44.4%)
Fairly religious	25 (18.5%)
Not too religious	10 (7.4%)
Not religious at all	

*Proportions are unweighted estimates.

Table 2. Bivariate analysis on how helpful medications are for the very religious and fairly religious sample of HBCU sample. (Adapted from adapted from Kim et al, HMS 2010) [35]

How helpful on average do you	Very religious n=36	Fairly religious* n=54

| think medication is when provided competently	N=90	
	χ²(Probability)	X² (Probability)
Very helpful	6 (16.7%)	10 (18.5%)
Quite helpful	12 (33.3%)	13 (24.1%)
A little helpful	16(44.4%)	16(29.6%)
Not helpful at all	0 (0%)	15 (27.8%)

Table 3. Bivariate analysis on how helpful therapy or counseling are for the very religious and fairly religious sample of HBCU sample. (Adapted from adapted from Kim et al HMS 2010) [35]

How helpful on average do you think therapy or counseling is when provided competently	Very religious n=36	Fairly religious* n=54
	N=90	
	χ²(Probability)	χ²(Probability)
Very helpful	18 (50.0%)	19 (35.2%)
Quite helpful	11 (30.5%)	25(46.3%)
A little helpful	5(13.9%)	8 (14.8%)
Not helpful at all	0 (0%)	2 (3.7%)

Conclusion

Cultural adaptation in caring for this population involves primarily interplay to enhance access and quality to traditional mental health resources, peer-based and academic family support, and religious resources if desired. Study results suggest a high level of religiosity in this HBCU population, difference in views of medication helpfulness with religiosity level, no difference in views on counseling helpfulness or use of academic versus non-academic resources in times of distress. Further study is warranted to determine the extent and effect of student's views on their service utilization, their compliance with a treatment plan, to include medications and other interventions and their ability to matriculate. Considerations for further service development include destigmatization and trust-building, screening, innovative referral settings with access or referral to spiritual care, CPA, MTM, health center surveys, peer support groups, faculty and "academic family" screening and skill building, and disease state management and medication counseling for comorbid conditions (e.g. diabetes, HIV). Also, training programs such as At-Risk and QPR to enhance detection by those most likely to comprise of a student's defined "academic family". Incorporating community based pharmacist clinics and pharmacies into multidisciplinary care through CPA and MTM could be a vital strategy to extend quality care access. There is a possible relationship between knowledge, awareness and encouraging help-seeking behavior. Increased understanding of attitudes and resources turned to in times of distress can help direct resources to train those who can identify student need, intervene, and extend access to comprehensive mental health services on campus and in community.

Fig 1. Perception of Medication and Counseling Helpfulness over Religious Status (adapted from Kim et al, 2010, HMS 2010) [35]
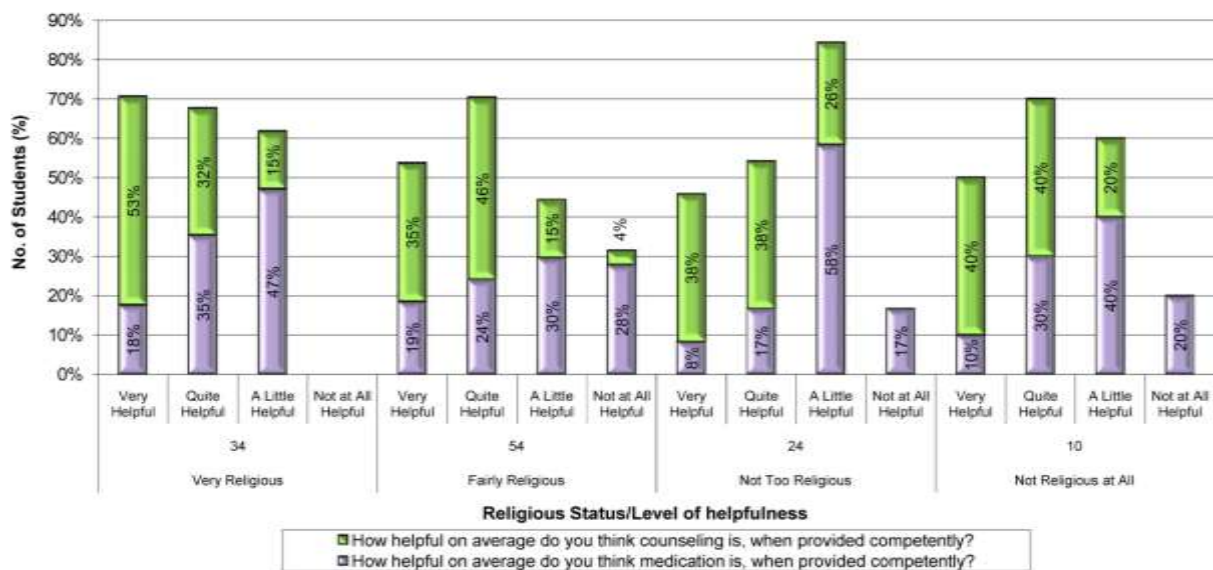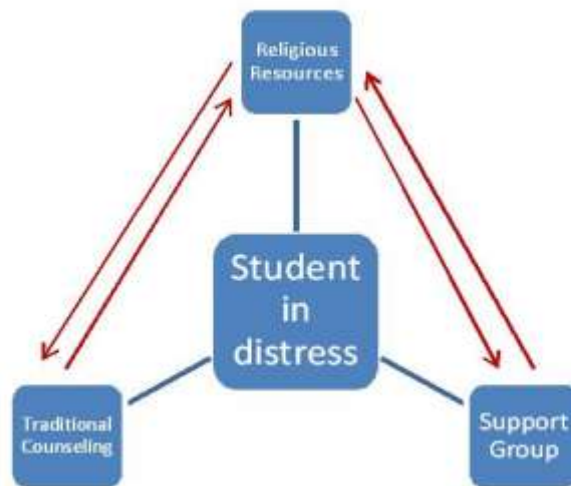
Fig 2. Conceptual Model for Assisting with Student Distress (adapted from Oji, Barnes et al,2011[29])

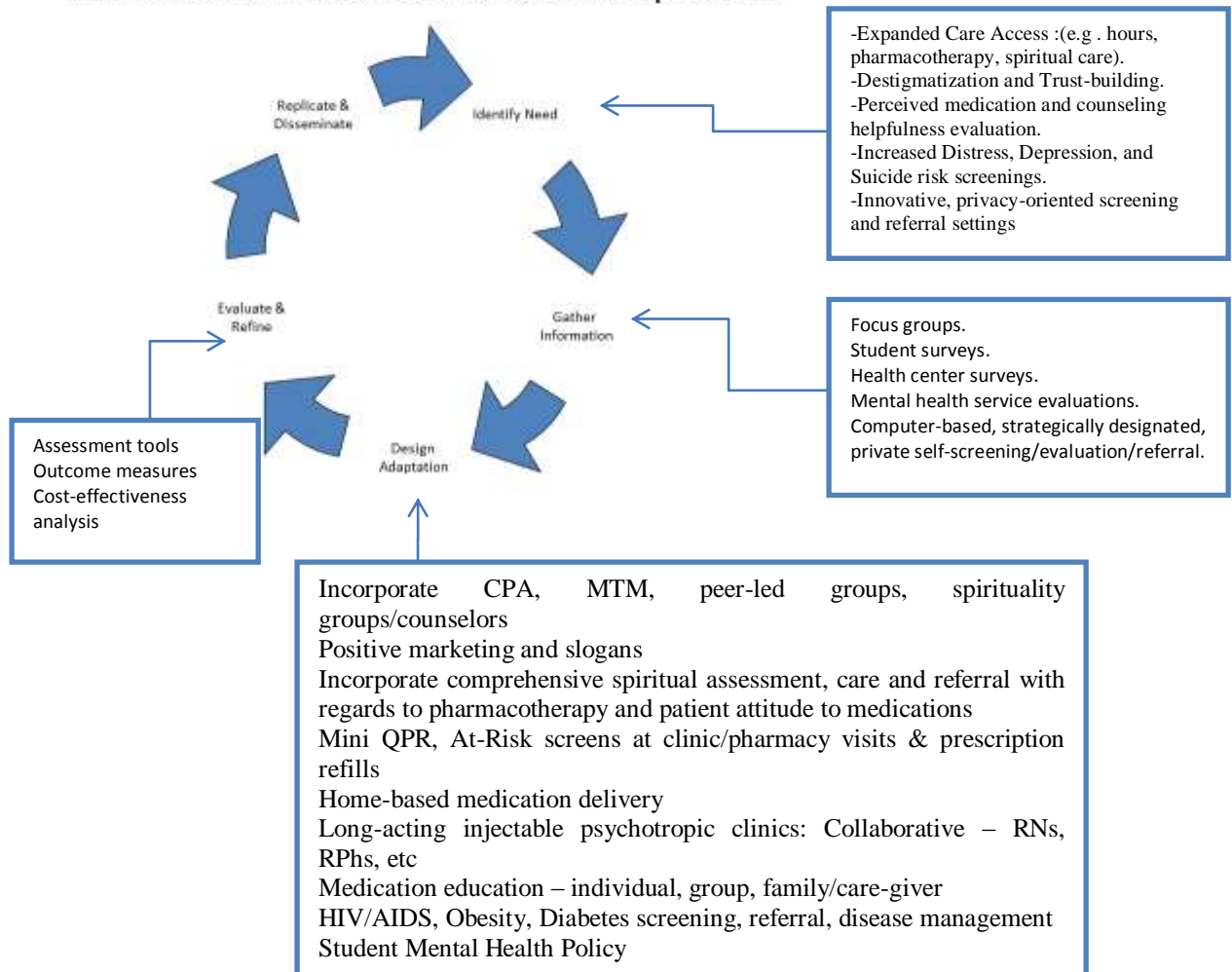## An Iterative Model of Cultural Adaptation

-Expanded Care Access :(e.g . hours, pharmacotherapy, spiritual care).
-Destigmatization and Trust-building.
-Perceived medication and counseling helpfulness evaluation.
-Increased Distress, Depression, and Suicide risk screenings.
-Innovative, privacy-oriented screening and referral settings

Focus groups.
Student surveys.
Health center surveys.
Mental health service evaluations.
Computer-based, strategically designated, private self-screening/evaluation/referral.

Assessment tools
Outcome measures
Cost-effectiveness analysis

Incorporate CPA, MTM, peer-led groups, spirituality groups/counselors
Positive marketing and slogans
Incorporate comprehensive spiritual assessment, care and referral with regards to pharmacotherapy and patient attitude to medications
Mini QPR, At-Risk screens at clinic/pharmacy visits & prescription refills
Home-based medication delivery
Long-acting injectable psychotropic clinics: Collaborative – RNs, RPhs, etc
Medication education – individual, group, family/care-giver
HIV/AIDS, Obesity, Diabetes screening, referral, disease management
Student Mental Health Policy

Fig 3: Cultural Adaptation Process - Psychopharmacotherapy Services (adapted from Le, et al [11])

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