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Youth Focus Groups: Design and Analysis Plan for the BEARS Project

Service Learning/Capstone

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Public Health Practice

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November, 2017

Abstract

This capstone project produced a qualitative research design and analysis plan for youth focus groups as part of a Quality Improvement project at OneWorld Community Health Center (OWCHC) School-Based Health Center (SBHC) located at Bryan High School (BHS) in a program called BEARS. The intended use of this project is to serve as a reference guide for BEARS program planners to utilize as part of the data collection and analysis processes. The purpose for collecting qualitative data for this project is three-fold. 1. To explore adolescents' perspectives of risk behaviors and associated health determinants common to their age group 2. Offer an opportunity for students to collaborate about health inequities within their school community and voice suggestions on strategies to address those needs. 3. Provide qualitative findings that program planners can reference when designing interventions. The deliverable from this project will assist OneWorld in capturing qualitative data through a methodical approach and framework, assisting program planners in focus group design, execution and analysis. Additionally, considerations for disseminating the findings is offered for the placement site.

The intent of the focus group design is to inform program development by exploring adolescent perspectives of health behaviors and the social, structural and cognitive barriers to optimal health and academic achievement. The researcher constructed the focus group plan using published quantitative data illustrating the prevalence of risk behaviors in the adolescent population. Additionally, published data regarding the relationship of protective factors and social determinants of health on risk behavior in the adolescent population was considered for the focus group design. The Rapid Assessment of Adolescent Preventive Services, Public Health (RAAPS-PH) screening tool will be utilized by OWCHC, SBHC in the BEARS program to capture student reported data regarding risk behaviors, protective factors and social determinants of

health. Quantitative data available on a comparative U.S. High School using the same screening tool was utilized as reference group by the researcher when designing the deliverable for this project. The Framework Method was modeled to inform the data management and analysis strategies within the plan proposal and to assist facilitation of the Constant Comparative techniques suggested. As part of the final deliverable, recommendations for data dissemination including ethical considerations were offered. The impacts of this project and subsequent research will continue to inform interventions provided to individual students (tertiary prevention), groups of students (secondary prevention) and from a systems level perspective to inform primary prevention strategies. Long-term public health impacts include a reduction in preventable morbidity and mortality rates in this population and improved graduation rates.

Introduction

The BEARS program is a community-driven initiative delivered in the public high school context within the greater Omaha metropolitan area. Bryan High School was selected by Omaha Public Schools (OPS), OneWorld Community Health Centers (OWCHC) and Building Healthy Futures (BHF) to implement a new program through the School-Based Health Center (SBHC) operated by OWCHC. ***B****ridging equity by* ***E****nhancing wellness and* **A***cademic success through* ***R****isk screening and population level interventions in the* **S***chool-based health center* (**BEARS**) works to improve the health of a given community of youth, by identifying, monitoring, and addressing health issues impacting student learning. Bryan High School's animal mascot is the Bear enhancing the attribution of the project to the intended audience. The program utilizes a public health approach within a school-based health centers. By implementing a universal, comprehensive screening tool, the School-Based Health Center (SBHC) will be able to quantify the priority health issues faced by the student population. Informed by the inclusion of

qualitative findings, program planners can then create individual and structural responses and interventions to identified risks that negatively impact both the student and the school population. A key element of program improvement will consist of analysis of the quantitative screening data. This will be conducted by OWCHC in coordination with OPS and BHF immediately after screening administration to identify areas of priority health needs. OWCHC intends to conduct Youth Focus groups subsequently following quantitative analysis to garner youth input regarding the priority needs identified. Resources for program evaluation are limited for OWCHC. FQHC's as HRSA fund recipients must use grant dollars specifically for the project it was intended (Messina, Baker & Holm, 2016) and OWCHC does not have grant funds allocated for qualitative data collection or analysis of the BEARS program. Additionally, as a healthcare providing institution internal expertise in qualitative methods and analysis is limited. The qualitative data design and analysis plan as the deliverable for this project is intended to assist OWCHC in quality improvement activities for the BEARS program through a structured framework for capturing and using qualitative data. Additionally, OWCHC can apply the design and analysis plan framework with other organizational quality improvement projects.

Problem Statement

The youth voice is often overlooked or not captured when medical and public health interventions are designed to modify risk-taking behaviors in this age group or mitigate health inequities that exist for the population.

Literature Review

Focus Groups

One possible reason for the failure to demonstrate improved health is that the young persons' perspective is lacking (Borden, Perkins, Villarruel, & Stone, 2005; Cater, Machtmes, & Fox, 2013). Focus group methodology for data collection is an excellent qualitative research method (Gibson, 2007; Gill, Stewart, Treasure & Chadwick, 2008; Krueger & Casey, 2015; Rich & Ginsburg, 1999) to help gain the young person's perspective on a variety of issues related to health and wellness. Including the young person's input into program design may enhance their participation in the initiative, which would ultimately improve the health of adolescents to a greater degree than when their perspective is not taken into account (Borden, et al., 2005; Heary & Hennessy, 2002). Kruger & Casey (2015) in their book Focus Groups: A Practical Guide for Applied Research that focus group interviews are well suited when the goal is to explore people's feelings, opinions, or ideas. Gaining student insight into particular health behaviors will offer program planners the youth perspective. This can equip planners with cultural context and common language used about the behavior within the population. Focus groups can also elicit barrier or incentives experienced by the youth regarding particular behaviors. These ideas, opinions and feelings can be incorporated by the program planners in the intervention design phase of development.

Youth Empowerment Theory

Too often behavior change interventions fail to meet expected outcomes. One possible factor for inappropriate intervention design is that the young persons' perspective is lacking. Engaging the youth voice utilizing focus group methodology offers qualitative data to program planners. Focus groups offer the opportunity to gain the perspectives and insights of the intended recipients of the program intervention. In the BEARS program, that population would be the youth themselves. Including the student's input into program design may enhance their participation in the

initiative, which would ultimately lead to greater improvements in health and educational attainment when their perspective is not taken into account.

The field of youth empowerment has a solid foundation of theory, at both process and outcomes levels. The process – or *empowering level* – provides opportunities for youth to develop skills and become problem solvers and decision makers. The outcomes – or the *empowered level* – refers to the result of the empowerment process, including the consequences of attempts to gain control in the community and the effects of interventions designed to empower participants (Zimmerman, 2015). As BEARS has a simultaneous objective of improved individual student health paired with long-term improvements in health equity for the community the constructs of youth empowerment are important to note for program success. The three constructs of youth empowerment theory applied to the BEARS project should inform program success; individual empowerment, organizational empowerment, and community empowerment. (Peterson, 2014). Individual Empowerment occurs when youth have the opportunity to develop skills and lend their perspectives to discussions about and for their health and that of the community. The construct of organizational empowerment is demonstrated through the benefits incurred by OWCHC and OPS from the opportunities offered to the adolescents they serve to build the self-efficacy that will ultimately lead them to take active steps in reducing risk behaviors. Including the youth voice will offer new perspectives for alternative or new provisions of services offered through BEARS program. Community empowerment transpires as a result of youth empowered to be "change agents" in their given community to improve health equity (Gullan, Power, & Thomas, 2013).

The Health and Education Connection

Health and education are two sides of the same coin (Woolf, 2007 & Ross, 1995), suggesting that supporting high school graduation and post-secondary education could contribute to greater improvements in population health. One of the goals identified in Healthy People 2020 is to "improve the healthy development, health, safety, and well-being of adolescents and young adults" (Healthy People, 2020). One of the objectives listed to meet this goal is to improve the proportion of students graduating high school with a four-year diploma. (Healthy People, 2020). Higher education attainment leads to better health in a variety of ways (Molla, 2004). Greater education achievement leads to higher earning potential (Day, 2002). Greater earnings enable individuals to mitigate the social determinants affecting health. For example, those with higher education purchase housing in safer neighborhoods, have improved access to health care and are more likely to have health insurance coverage (Dugan, 2005). Those with higher education tend to have greater social supports and larger social networks, which in-turn reduce social stressors all of which contribute to greater health outcomes (Garcia-Ried, 2005). Dropping out of school results in negative outcomes for both the individual and society (McKee, 2016).

Adolescent Risk Behaviors

Although the rates of certain adolescent health risk behaviors, such as teen pregnancy, tobacco use, and substance abuse, have declined during the past decade, racial/ethnic, socioeconomic and geographic disparities currently exist (Maness, Buhi, Daley, Baldwin, et al., 2016). The number of young people involved in a variety of health risk behaviors in the U.S. remains far too high. (Kann, Kinchen, Shanklin, Flint, Kawkins, et al., 2013). Preventable accidents and suicide are still the leading causes of death in this population (Minino, 2010) while negative health behaviors and social determinants of health fuel the chronic disease epidemic in this country (Ward, Schiller & Goodman, 2014). As of 2014, just over half of U.S. teens identified as white.

It is estimated by 2050 the majority (60%) of U.S. adolescents will identify as non-white Black, Hispanic, Asian or multi-racial. (U.S. Census Bureau, 2014). DiMatteo, Haskard & Williams (2007) suggest implementing culturally informed, effective and evidence-based programs to reduce health risk behaviors and to improve patient adherence to treatment plans. Several studies support that both individual and community factors can act as insulative factors in shielding youth from engaging in harmful risk behaviors (Ickovics, Carroll-Scott, Peters, Schwartz, et al.,2014; Oman, Vesely, Aspy, Tolma, Gavin, et al., 2013; Rodine, Oman, Vesely, Aspy, Tolma, et al., 2016). Incorporating youth development strategies as a "youth asset" in health promotion or intervention planning increases the likelihood that youth feel empowered with skills and abilities to make healthier decisions for themselves and to positively influence their peers (Greenberg & Lippold, 2013; Roth & Brooks-Gunn, 2015).

Recently published quantitative studies on risk behaviors in adolescents were used as the foundation for the OWCHC Focus Group design. Possibilities for Change (P4C) developed RAAPS which is a cloud-based risk screening instrument utilized in the BEARS program. RAAPS is currently used in over 350 sites nation-wide. Over 300,000 assessments are housed in their data based (Salerno, 2017). P4C recently analyzed 63,043 of these surveys conducted between January 2015 and December 2016 and published their report entitled RAAPS State of the States: Adolescent Risk Behaviors in the U.S. 2015-2016. Additionally, data analysis from the Center for Disease Control and Prevention was published September 8, 2017 in the Morbidity and Mortality Weekly Report (MMWR) entitled Health-Related Behaviors and Academic Achievement among High School Students – United States, 2015. RAAPS-PH was created in collaboration with Center for School, Health and Education at the American Public Health Association and P4C. The PH or Public Health component to the survey incorporates

additional questions regarding social and environmental factors that impact health and educational outcomes.

A reference population to the BEARS population was found on the P4C website in a case study entitled *Empowering Students and Creating Opportunities Despite the Odds, A Public Health Capacity Building Case Study in Cincinnati, Ohio*. The population in this case study utilized the identical screening tool used in the BEARS project. Collectively, the findings in P4C's RAAPS report, their RAAPS-PH case study along with the MMWR authored by Raspberry, et al. (2017) supported the selection of the health priorities to anchor the focus group design and framework for the BEARS project. Comparisons of Bryan High School and Aiken High School are illustrated below in Table A.

According to the findings by Raspberry et al. (2017) in their analysis of 15, 624 students who completed a version of the YRBS that included a question regarding academic achievement there was an association with self-reported grades and risk behaviors. Ninth to twelfth graders who self-reported grades of D's or F's were associated with being sedentary, substance users, participating in sexual risk behaviors, violence and self-harm behaviors. Contrariwise, students who reported grades of A's and B's had significantly higher prevalence estimates for protective factors than those students with lower reported grades (Rasberry et al., 2017). Salerno (2017), in her analysis of data from 63,043 RAAPS assessment conducted between January 2015 and December 2017 found that anger management, depression and thoughts of suicide ranked above substance use and sexual risk behaviors. Additionally, when respondents reported one mental health factor, the prevalence of additional risk factors was significantly higher when compared to adolescents that reported no mental health factors. Particularly, substance use and sexual risk behaviors were more likely in respondents with an additional mental health factor (Salerno,

2017). As in the MMWR by Raspberry, et al. (2017) protective factors were also analyzed by Salerno. She found that students who reported having a trusted adult they could talk with had fewer reported mental health issues than their peers who did not. Those who did not report a trusted adult were more likely to engage in risky behaviors (Salerno, 2017). These behaviors were again associated with substance use and sexual risk behaviors and suicidality. Respondents who lacked this protective factor were three times more likely to report feelings associated with depression (Salerno, 201). Findings of the case study published by P4C highlights the basic unmet needs experienced by reference student population. Additionally, 35% of students reported missing school for caregiving responsibilities. When these social factors were reported, students also were more likely to report mental health related issues (P4C, 2017).

At Aiken HS in Cincinnati nearly all of the student body qualifies for the Free and Reduced Lunch (FRL) program. Additionally, Aiken reported a 53.8% four year graduation rate. Although Bryan HS fairs better at an 83% FRL and a 73% four year graduation rate, poverty in both schools was higher than their district average (Ohio Department of Education, 2016; Omaha Public Schools, 2015).

Table A serves as a reference for key school characteristics from 2014-2015 (the most recently published) specific to Bryan High School in Omaha, NE. and those from the reference school, Aiken High School in Cincinnati, OH from 2016-2017.

Table A

Bryan High School School Characteristics 2014-2015		
Characteristic	***District***	***School***
Enrollment	52,025	1,621
Free/Reduced Lunch %	73.2%	83.2%
English Language Learner %	14.5%	7.3%
Special Education %	17.5%	16.3%
Refugee %	3.8%	4.1%
Mobility Rate %	16.8%	21.0%
Attendance Rate%	93.5%	89.7%
Graduation Rate % (4 yr. cohort)	80.7%	74.6%
Dropout Rate % 2013/14	2.5%	4.3%

Aiken High School School Characteristics 2015-2016		
Characteristic	***District***	***School***
Enrollment	36,098	699
Free/Reduced Lunch %	79.9%	99.0%
English Language Learner %	6.3%	2.3%
Special Education %	18.0%	27.2%
Refugee %	NC	NC
Mobility Rate %	13.9%	2.7%
Attendance Rate%	95.2%	
Graduation Rate % (4 yr. cohort)	72.7%	69.3%
Dropout Rate % 2015/16	NC	NC

Table A: *Study and Reference Population Characteristics,* from Omaha Public Schools, Enrollment, and Achievement School Data Book and the Ohio Department of Education, School Quality Report

There is a strong relationship between a student's socioeconomic status and his/her levels of health and academic achievement (Sirin, 2005). BHS's student population for 2014-2015 totaled 1,621. Of those, 1,269, or 78%, are from minority populations. Hispanic students comprise 969 students of the school's minority population. Since 2001, BHS minority population has grown by 173.5%. Free meals or reduced price meals are available to students eligible under federal poverty guidelines (for a family of four that would equate to annual earnings of between $30,005-44,123) or between 185-200% of the Federal Poverty Level (Federal Register, 2014). The school district's percent of free/reduced lunch (FRL) participation is 73.2%, while 83.2% of BHS qualify for FRL.

BHS mobility rate of 21% is higher than the district average and considered "very high" by Educational Research Services, Spectrum (2017). Mobility, defined by the district, is a student

who enters and leaves at least 2 or more schools in the academic school year. Only 74.6 of students attending BHS graduate within four years as compared to the district average of 80.7%. A dramatic and catastrophic difference at BHS is a 4.3% dropout rate which is nearly double the district average. These statistics indicate the challenges the Omaha community has experienced in creating safe, supportive and healthy school environments for students in Southeast Omaha and these same issues face the referenced population at Aiken, HS in Cincinnati.

Methods

Study Design

This project includes a qualitative research design inclusive of a focus group framework and analysis plan and is intended to inform BEARS program development, most specifically intervention planning. The anticipated use of this capstone project is to design a framework for BEARS program planners to employ. The implemented focus group frame work will provide data related to student perceptions regarding social, cognitive, and structural barriers that imped optimal health. Additionally, the focus group design will aim to elicit student feedback about possible interventions to address priority areas.

Application of Theory

Bandura (1989) asserts that Social Cognitive Theory is an interpersonal theory and behaviors are influenced by personal factors, behavior factors and social factors. Bandura (1989; 1991; 1998; 2004) explains these core concepts of causation as Reciprocal Determinism. The overarching goal of the BEARS project is to implement public health practices into primary care in schools. As such, SCT was used as the underpinning theory for constructing the focus group framework and analysis plan for the BEARS project. The qualitative data from the youth focus groups will

offer BEARS program planners valuable insights into youth perceptions of risk behaviors and barriers to health and education. Focus groups will attempt to ascertain what facilitators or hindrances to health should be considered by program planners when designing interventions. . The focus groups method of data collection offers program planners the opportunity to engage students in the formative work of intervention planning. Including the youth voice could impart a sense of empowerment and therefore anticipate youth participation in intervention design, implementation, and uptake.

Selection of Study Sample for Focus Groups

Student participants will be recruited from Bryan High School (BHS) located in the Omaha metro. Focus group participants will be current 2017 students at Bryan High School and concurrently consented patients of the OWCHC SBHC physically located within the High School building. In accordance with the Code of Federal Regulations Title 45 Public Welfare Department of Health and Human Services Part 46 – Protection of Human Subjects (45 CFR 46.116) , an active written consent, requiring both the patient and parent signature will be required for students to participate in focus group discussions. The consent form will be available in both English and Spanish and will be disseminated to eligible patients of the School Based Health Center. A letter accompanying the consent form explains the intent of the focus groups, description of the focus group structure and process along with a description of the health domains. Consent forms will be distributed and collected during advisement period during the school day by SBHC staff to eligible patients. When distributing the focus group consent forms, BEARS program planners will use the following verbiage to summarize the intent of the focus groups in order to maintain consistent messaging to all patient’s being recruited.

The OneWorld Community Health Center, School-Based Health Center (SBHC) at Bryan High School will be conducting youth discussion groups. These discussions will allow you the opportunity to talk about the recently administered RAAPS-PH, Rapid Assessment of Adolescent Preventive Services-Public Health and to offer input for health center and school wide strategies to help you be successful in school. The discussions will cover topics including nutrition, physical activity, social and emotional health, and tobacco, alcohol, and other drug use, as well as risky sexual behaviors that could be health prohibitive and will last about 60 minutes. The Session will be facilitated during advisement period and continued for thirty minutes after school. Late bus sign-up is available for district transported students. A meal will be provided as well as a ten dollar gift card incentive for your participation. If you and your parent agree for you to participate you will be assigned to a discussion group according to age, gender and primary language spoken. The discussions have been designed to protect your privacy. Students will never be mentioned by name in the collection or reporting of the results. The results will be aggregated and used as part of the health center's program improvement. Participation is voluntary. No action will be taken against the school, you, or your parent if your child does not participate in the discussion. Participants may withhold comment on topics in which they are not comfortable and you may stop participating in the discussion at any point without penalty.

You and your parents/guardian must read and sign the consent form and return it to the OneWorld Community Health Center, School-based health center at Bryan High School within 3 days if you agree to take part in the discussion. Please note a limited number of patients will be selected to participate in this discussion, so please return this consent as

soon as possible. You receive written notification of your assigned discussion group date and time by the SBHC during advisement period.

Additionally, to meet the regulatory requirements of 45 CFR 46.116, an additional witness must be present when the verbal description of the focus groups is given to recruitment population. This witness will be a member of the behavioral health team at OneWorld Community Health Center's main clinic. The OWCHC staff member who serves as the witness will not have had clinical encounters with students in the SBHC and will not be familiar to the recruitment population. The witness will attest by signature that the verbal description offered to focus group recruits meets the standard set forth in the statute.

Signed consent forms must be returned to the SBHC by the student or parent/guardian. The signed attestation and the signed consent forms with both the parent/guardian and patient signature, will be copied and given back to the patient and/or parent/guardian for later reference if needed, in accordance with 45 CFR 46.117. Signed returned consents and signed summary documents will then be scanned and stored in the patients' medical record under the category labeled "Consents" and under the folder labeled "RAAPS Focus Groups." Once the student's identity is verified at the focus group encounter, the hard copy of the consent and summary are then destroyed through shredding by designated SBHC Staff.

Incentives for participation were also described. The sample of the combined consent form and letter is listed as attached as Appendix A and the active and informed Consent Process as Appendix B.

Inclusion/Exclusion Criteria

Focus group participant inclusion and exclusion criteria was mutually agreed upon with OneWorld Community Health Centers and Bryan High School Administration.

Inclusion Criteria:

Participants must be OneWorld Community Health Center consented patients for the School-Based Health Center at Bryan High School and concurrently enrolled students at Bryan HS. Additionally, patients must have completed at RAAPS-PH screening in the summer or fall of 2017. A patient and parent signed active consent must be on file as admittance into a focus group and students must be English or Spanish speaking to participate. Student who use district transportation to and from school will be allowed to participate given they meet the above criteria as “late bus” services will be available to those who contribute to a focus group. In order to participate in the focus groups patients must present a form of identification. Acceptable identification would be their OPS student ID card or a driver’s license or Nebraska State ID. These forms of ID will then be matched to the signed consent form.

Exclusion Criteria:

Non-consented SBHC patients that are current Bryan HS students. Non-Bryan HS enrolled patients. Consented patients of the SBHC that did not take the RAAPS-PH assessment during the summer or fall of 2017. The Alternate Curriculum Program (ACP) serves students with cognitive disabilities in grades 9-12. Students in ACP require additional support to meet their individual needs and as such participation in a focus group format would be difficult. For students whose primary language is neither English nor Spanish will be excluded from participation due to the lack of resources available to conduct focus groups in the student’s native language.

Additionally, students who present to the focus groups without identification to verify participation will be excluded.

Sample Size

Homogeneity among the focus groups will be key to heightening the participant's level of comfort to maximize disclosures. Given the anticipated priority health behaviors that may be discussed focus groups will be stratified by gender and age. School staff will be consulted by the BEARS program planners in the assignment of focus group participants to help control for power or clique bias within each group. Based on the anticipated pool of participants (approximately 500 students) a minimum of 4 focus groups containing 8-12 participants each is suggested. These groups, would include one group of English speaking male ninth graders and another of English speaking females in the same grade. Separate grade nine Spanish speaking groups for males and females are also recommended. Additionally, for those students who completed RAAPS-PH as part of a clinical encounter that were in grades 10-12 the researcher recommends an additional focus groups stratified by gender. In all the sample size would include 8-12 participants each, from a total of 6-7 focus groups, giving a total sample size ranging from a low of 48 to a high of 84 participants. Glaser & Strauss (2009) recommend between 30-50 focus group participants to achieve saturation when applying the constant comparative method in the qualitative data analysis.

Incentives

Small incentives will be used to enhance the likelihood of patient participation as mutually agreed upon by OWCHC and Bryan HS administration. Patients will receive a five dollar gift card for returning a signed consent form to the SBHC. A meal is provided to students during the

focus group and another five dollar gift card is provided to the patient at the conclusion of their participation in the focus group. A diagram of the consent process is included as Appendices B.

Data Collection Methods

Qualitative Data – Focus Group Framework

By means of the frequency and associations of the health behaviors reported in the studies noted in literature review, construction of the focus group framework was organized around the following health priorities listed in Figure 1.

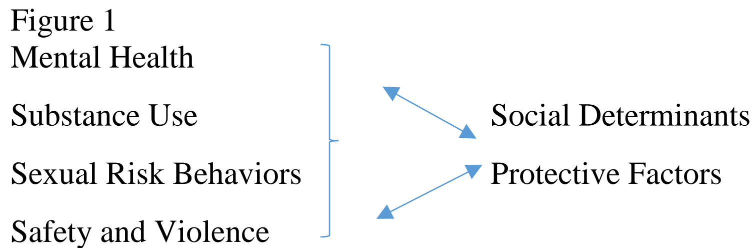

Figure 1. Focus Group Health Priority Domains

As a relationship with a trusted adult mitigated the frequency of risk taking behaviors, protective factors are also included as a priority domain (Salerno, 2017). Social determinant questions are scattered under various domains in the RAAPS-PH assessment. For the purposes of the focus group framework, social determinants are separated out as its own domain. Theses priorities mirror the language of health domains featured in the RAAPS-PH assessment. Appendix C illustrates the domains of questions as contained in the RAAPS-PH.

The focus group questioning route also takes into account the purpose of the focus groups as outlined by program planners: 1) To explore adolescents' perspectives of risk behaviors and associated health determinants common to their age group, 2) Offer an opportunity for students to collaborate about health inequities within their school community and voice suggestions on

strategies to address those needs, and 3) Provide qualitative findings that program planners can reference when designing interventions. Keeping in mind that program planners may want to compare and contrast responses across groups, questioning lines should remain consistent between groups. Translation into Spanish will be conducted by OWCHC staff and verified with other Spanish speaking staff that the fidelity of question intent was maintained with the translation. A Focus Group Facilitation Guide is offered as Appendix D. This appendix includes a narrative for the planners when commencing each focus group as well as the format of the questioning route.

A summary of the questioning route by domain is featured in Table B below.

Table B

Order	**Health Domain**	**Minutes Allotted**
	Welcome and Ground Rules	5
1	Protective Factors	5
2	Mental Health	9
3	Sexual Health	9
4	Substance Abuse	9
5	Violence	9
6	Social Determinants	9
7	Recommendation for Interventions	5
Total		60min

Table B: *Sample Format of focus group line of questioning for the BEARS project*

On the occasion OWCHC completes administration of the RAAPS-PH survey and has the full quantitative data set from their program a process was developed to assist BEARS program planners when determining their final priorities and questioning route for the focus group. This will be particularly useful process should the priority health indicators of the target population differ from those chosen by the researcher. Appendix E illustrates the entirety of the BEARS project intervention planning process while Appendix F includes an algorithm of the determination process for identify the health priorities for their project.

Research Question

Examine youth perceptions of risk behaviors and to identify what approaches in intervention design would be supported by this population.

Analytical Methods

The Framework Method was selected to support the thematic analysis using theory related examination techniques to produce themes (Gale, Heath, Cameron, Rashid & Redwood, 2013). Thematic Analysis is an explanatory interpretive method for data collection and analysis (Newcomer, Hatry & Wholey, 2015). This approach is best used when distinct meanings inherent to the qualitative data are gleamed using descriptive labels. A hallmark of thematic analysis is the researcher moves in and out of the data through classifying or coding and writing (a form of reflection) about the data (Newcomer, et al., 2015). The Framework Method was selected to support the thematic analysis using theory related coding techniques to produce themes (Gale, et al, 2013; Ritchie, 2003). The structure offered by this method to program planners yields a systematic model for managing and mapping the data derived from the focus groups. BEARS program planners are interested in comparisons within individual focus groups and between the focus groups. Furthermore, comparisons of this cohort yearly for subsequent years through the 4th year of high school is intended. Thematic analysis and the use of The Framework Method is particularly suited for these types of comparisons (Ritchie, 2003).

The Framework Method for Analysis

Step 1. Data Collection

The qualitative data will obtained during focus groups. These groups will be audio recorded by the facilitators. Facilitators will follow a data management algorithm to manage the chain of custody of focus group recordings to BEARS program planners as demonstrated in Appendix G.

The original student consent form will be used to check students into the focus group session. Student ID or a NE ID will be required for entry and match the name on the consent form. Students will then be informed the sessions will be audio recorded and that the student may choose not to respond to any questions they do not feel comfortable with. Students may also choose to leave the session at any time. Audio recordings will be locked in a file cabinet in the SBHC. OWCHC may hire an outside consultant for data analysis and the transfer of the recordings will become the possession of the hired consultant for the purpose of analysis. Once the audio sessions have been transcribed it is recommended that they be stored on an encrypted computer or uploaded into a data analysis software. Once the transcription is secured, the audio recording and transcription word document will be destroyed. Lastly, should OWCHC conduct the student feedback session with internal staff it is recommended that some training in focus group facilitation be provided and when possible facilitators should be representative of the ethnicities and cultures embodied in the focus groups.

Step 2: Transcription

Focus group recordings will then be transcribed verbatim into a word document to ensure a systematic analysis of the data. Likely, the focus groups facilitators will not be conducting the data analysis, so transcription offers the analyzer the opportunity to become submersed in the data. Once each focus group is transcribed, an individual word document/transcript for each group will then be uploaded into a Computer Assisted Qualitative Data Analysis Software (CAQDAS). Labeling of the groups could be simply assigned as Focus Group 1, 2, 3 and so on. NVivo was chosen as the Computer Assisted Qualitative Data Analysis Software to assist with data management. This software has been made available to program planners through BEARS project funding.

Step 3: Acquaintance with the Focus Group Recordings

Particularly, if the transcription is outsourced or not undertaken by the researcher completing the analysis by listening to the entirety of the recordings will be important. At this time, reflective notes can be made in the CAQDAS. Those initial impressions and notes can be especially useful when the researcher is clarifying coding or when considering comparisons across groups.

Step 4: Coding

For the purposes of this project, a strictly deductive coding approach is recommended. As program planners may themselves be conducting the analysis, the deductive approach outlined in the deliverable makes this a more feasible process. Should program planners enlist the expertise of a trained qualitative researcher an inductive approach could compliment the deductive study. Codes are pre-defined using components of the theoretical concepts and the research questions. This A priori approach offers planners the opportunity to compare data across focus groups systematically. A diagram of the process for which the researcher suggests coding should take place is offered in the figure below and adapted from Fereday & Muir-Cochrane, (2016).

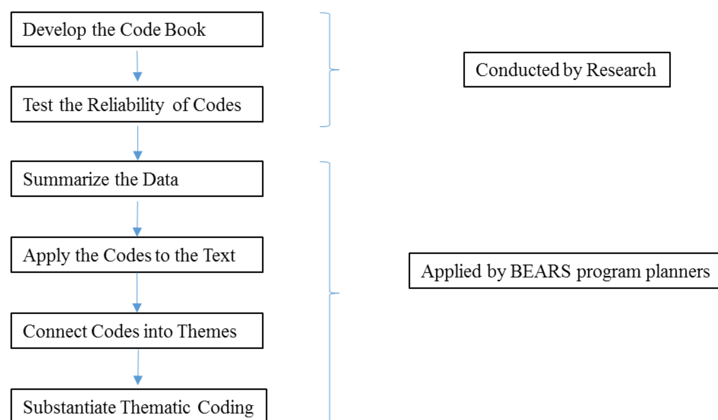

Figure 2. *Diagrammatic representation of the recommended stages for coding data in the BEARS project.*

The use of a code book is an essential device for BEARS program planners. The code book serves as a data management tool to organize the rich text from the focus groups into related segments and postulate an interpretation of the qualitative data (Crabtree & Miller, 1999). Three broad categories were first developed using what Bandura (1989; 1991) proposes as the triangulation of personal factors, behavioral factors and social factors or Reciprocal Determinism influencing human behavior (Bandura, 1991; 1998; 2004). From there using the constructs in each of the categories is used to further refine the coding of text.

A matrix of the pre-defined codes is shown in Table C below.

Table C

Categories	Code(s)	Sub-Code(s)
Personal	Human Agency	Knowledge Belief Attitudes Expectation
	Human Capability	Empowerment Self-Regulation
Behavioral	Modeling	Motivational Observational
	Reinforcements	Positive Negative
Social/Environmental	Conditions	Enabling Disabling
	Supports	Enabling Disabling
	Materials	Enabling Disabling

Table C. BEARS focus group theoretical constructs and associated codes and sub-codes

Definitions and descriptions of each code are offered in the Code Book as Appendix H. This code book can be uploaded into NVivo and referenced within the software when assigning nodes to text. An example of the template for Behavioral codes is offered below in Table D.

Table D

Category	**BEHAVIORAL**
Code 1	**Modeling** (Bandura, 1989, p. 10)
Label	BHMD
Definition	Reproducing a behavior demonstrated by others
Description	The ability to replicate a behavior merely from observing the behavior of another
Sub Code 1a	**Motivational**
Label	BHMDm
Definition	Reasons for imitating a behavior
Description	These reasons could be from past, promised or secondhand incentives
Sub Code 1b	**Observational**
Label	BHMdo
Definition	The beliefs of seeing others participate in a behavior and trying it out
Description	Engaging in certain behavior is based because that same behavior was observed in a similar individual or role model
Code 2	**Reinforcements** (Bandura, 1989 p. 7)
Label	BHRF
Definition	The external facilitators that affect the likelihood a behavior is carried out
Description	The anticipated consequences of an action either in desired or undesired effect
Sub Code 2a	**Positive**
Label	BHRFp
Definition	The external response that affect the continuation of a behavior
Description	The perpetuation of a behavior for the purpose of a desired effect
Sub Code 2b	**Negative**
Label	BHRFn
Definition	The external responses that affect the discontinuation of behavior
Description	The perceived negative consequences that limit a behavior

Table D. *A Priori Behavioral Codes developed for the BEARS project*

Testing the reliability of the codes was conducted by the researcher using audio recordings of focus groups conducted by Brandert (2016) for a similar purpose of exploring adolescent health behaviors. Notes were taken by the researcher while listening to the recordings and the following excerpts in Table E are written as heard by the researcher and not necessarily verbatim quotes. These excerpts were then used to test the A priori codes set forth in the coding matrix. An example of this method for testing the application of the A priori codes is given in Table E.

Table E

Code	Excerpt from Transcript
SESd (Societal/Environmental, Supports, disabling)	“Like no one at home cares about me” (Brandert, 2016).
PEHAa (Personal, Human Agency, attitudes	“I just want to be in the moment, putting on a condom isn’t natural”
BHMDm (Behavioral, Modeling, motivational	“Lots of my friends we just do that. We ain’t goin to let them go all the way. Sometimes I do it even when I don’t want to, cuz my boyfriend he likes it when I go down on him. Then he just hangs out and we go and get food and stuff”

Table E. *Examples of code application to reference group excerpts acquired from audio recordings*

Step 5: The Analytical Framework

Each focus group transcript can be uploaded into NVivo. The application of the codes is then applied to the segment(s) of text related to a particular code. NVivo uses the term node, and codes are placed under this heading. Once coding is complete, grouping of codes should be developed. NVivo can sort the sections of coded text using a tree diagram or word map. For those sections of text that are not able to be coded using the A priori codes, the researcher recommends highlighting these sections within NVivo and coding them as unknown and labeled as UK. This will allow further trained qualitative researchers to expand coding using an inductive approach.

Step 6: Applying the Framework

Additional transcripts and subsequent years of data can then apply this framework. As each code is assigned an abbreviation in NVivo, these abbreviations should be carried forward in subsequent analysis. This ensures in part that later studies using the constant comparative method of analysis would be feasible.

Step 7: Summarizing the data into the Framework

The ability to condense or summarize each of the focus group data into the framework will be necessary. This process can be done using NVivo. The summary should include references to interesting or illustrative quotations for each category. These quotes should elucidate the meaning of the participant's feelings or words. These quotes can be labeled by category within NVivo to tag which transcript, page and line the reference it was generated from. NVivo can also illustrate framework matrices to illuminate this procedure. As a final step, the quote that is most descriptive/reflective of the student perspective in each category should be chosen to illuminate the findings.

An example of a summary of Behavioral reinforcements of carrying a weapon is given by a freshman male and extracted from the audio recordings of the reference group for testing code structure.

> "Some people bring it to look cool. You know like people bring it and show it around and people are like hey, he bad. And then people don't mess with him" (Brandert, 2016).

Below is an example of a summarizing statement about the structural/environmental influences that impede a student's ability to work on homework and practice healthy sleep habits. The following is a quote from a 9th grade female that was extracted from the reference group audio recordings.

> "Like I wake up at 530am to catch the bus. Bus comes at 656 and I get to school at 715. I don't get home until 6, cuz of soccer. Then sometimes, I got to walk home in the dark. I got to do homework or go to work and I can't go to bed until like 1030 or 11" (Brandert, 2016).

Another quote, illustrating disabling materials on completing homework.

"Sometime my wifi don't work either and we aren't given what we need to get the work done at home" (Brandert, 2016).

Step 8: Data Interpretation

Characteristic of and differences between the focus groups will emerge. The Constant Comparative Method is suggested to compare and contrast data from each focus group (Boeije, 2002). This method will be useful to BEARS program planners as they collect new qualitative data yearly on this cohort of patients. The findings from year one will offer program planners insights for the data collection in years 2-4 of this cohort. The similarities or differences can be mapped to explore relationships and will assist program planners on determining if interventions should be targeted to the aggregate population or focused on particular groups of students. Gathering feedback from participants prior to publishing will enhance the conclusions made by the researchers. Laying out the findings of the analysis systematically will allow for an opportunity to verify or substantiate the finding with the target audience. Including youth at this stage of BEARS planning can ultimately improve outcomes because youth will be more likely to participate in an intervention if they were involved in the design (Borden, et al., 2005; Heary & Hennessy, 2002).

Results

The final deliverable of this project is the Focus Group Framework and Analysis Plan. An executive summary was provided to OWCHC and incorporates all the appendices included in this report.

BEARS Executive Summary.pdf

Expected Interventions and Recommendations

Social Cognitive Theory suggests that three factors influence behavior choices: socioenvironmental, personal and behavioral factors (Bandura, 1991; 1998; 2004). The interplay of these factors when considering the risk behaviors identified in the BEARS population will assist program planners with intervention design. For instance, should the qualitative data collected regarding the risk behavior of "carrying a weapon" elucidate that youth are carrying a weapon because they feel unsafe at school, or unsafe traveling to and from school would suggest that socioenvironmental interventions rather than behavioral factors should be targeted to ameliorate that particular behavior. As mentioned the constant comparative method between focus groups could also assist planners in identifying any differences between groups. (Glaser 1965; Glaser et al., 1968; Glaser & Strauss, 2009). For example, freshman boys might state that when carrying a weapon, they feel that their social clout is enhanced therefore reinforcing this behavior. Interventions targeted at rewarding or reinforcing less risky behavior might be better suited for this particular population. The interplay of both socioenvironmental and behavior influences in this example suggest a combination of both a primary prevention or socioenvironmental intervention and a secondary prevention strategy focused solely on freshman boys that targets behavioral factors.

At Aiken High School, quantitative data revealed that almost 50% of students reported making choices that got them into trouble when they felt angry. This points to the construct of human capability and specifically to self-regulation (Bandura, 1989). A two part strategy was deployed to mitigate the resulting behaviors.

Possibilities for Change (2016) states:

> A dedicated “chill room” or calming room has been set up in the SBHC complete with bean bag chair, music, student painted murals, and aromatherapy where youth can decompress or remove themselves from a conflict. A set of rules and processes was created to ensure students would be able to check out of a class room and use the space without fear of punishment, and also without abusing the privilege. In addition, peer mediation training is being established to help students learn problem resolution while helping their fellow classmates. (p. 3)

Discussion

In order to effectuate the health of the public, public health practitioners must employ practices that follow general ethical and moral considerations (Morrow, 2008). This project in its design offered firm guidelines to ensure active consent and protection of privacy when working with minors. However, more nuanced approaches will be needed by focus group facilitators when managing the personal and potential harmful disclosures offered by students in the course of the focus group encounter. For example, strategies to handle disclosures of self harm or harm to others were not included in this paper, but should be discussed with program planners and protocols developed for the researchers when encountering this type of sensitive information while balancing the promise of anonymity to the subject. Additionally, program planners should be mindful of disseminating their findings beyond stakeholders engaged in program development. Caution in identifying the school population by name or even region within the city of Omaha could potentially make composition of the focus group participants identifiable by inference to the school. The personal and private nature of the questioning route suggests that program planners should not disseminate findings beyond OWCHC or contracted agencies involved in program evaluation and quality improvement. If data is to be shared outside the

preview of the operating agency than generalizing the location of the site to simply a Midwest Urban High School is recommended.

Public Health Practice is the planning, management and evaluation of programs or organizations engaged in public health. This learning experience reinforced the notion that “The best laid plans of mice and men often go awry”. The BEARS project faced a number of key hurdles in launching its dissemination of its screening tool RAAPS-PH and ensuing evaluation of the quantitative portion of the program. The RAAPS-PH had only been deployed during patient encounters within the SBHC and had not yet expanded to the entirety of the freshman class by the deadline of this Capstone experience. This delay in the quantitative methods subsequently delayed the qualitative data collection. Thus the deliverable of this project did not included the planned analysis and interpretation of the data set forth in the proposal. However, given the delay I believe the final deliverable to OWCHC offers a more sustainable framework for planners to employ over the course of the BEARS project and may have some transference to other similar projects like the Adolescent Health Project for which they are fund recipients. The facilitation guide and analysis plan could thereby build skill within the workforce that may not have existed prior to this project. Planning is key to program development and implementation however the management of organizational processes, preferences and personalities can hinder or harken the advancement of planned activities and programs. Navigating these phenomena within OWCHC and Omaha Public Schools eroded the time frame of the project. Personally held beliefs and prejudices had to be traversed and addressed in managing The BEARS program. The professionalism, competence and skill demonstrated by BEARS program planners and the administration of OWCHC in these nuanced encounters will be examples of leadership I will carry forward into my professional career.

This project entailed qualitative design and analysis for a small portion of the overall BEARS project. A final recommendation for BEARS program planners is to incorporate a program evaluation. Evaluating the program will offer planners the ability to make adjustments and corrections to meet goal criteria and outcomes and will inform the project for each year of the cohort. As part of the service learning activities for OneWorld, the attached evaluation plan was created for their consideration.

BEARS Program
Evaluation w Budge

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OneWorld Community Health Centers, Inc.

Appendix A

Consent Letter and Form

The OneWorld Community Health Center, School-Based Health Center (SBHC) at Bryan High School will be conducting youth discussion groups. These discussions will allow your child the opportunity to talk about the recently administered RAAPS-PH, Rapid Assessment of Adolescent Preventive Services-Public Health. Patients of OneWorld Community Health Center, School-based health center completed this assessment in early fall of 2017 as part of a clinical encounter. These assessments were done either electronically using an I-pad or on paper and are protected as part of your child's medical record. These feedback sessions will allow SBHC patients to offer insights regarding aggregate responses of the RAAPS-PH health assessment and to offer input for health center and school wide strategies designed to reduce barriers to health and graduation. The feedback sessions are intended to facilitate empowerment and continuous engagement with our patients. The discussions will cover topics including nutrition, physical activity, social and emotional health, and tobacco, alcohol, and other drug use, as well as risky sexual behaviors that could be health prohibitive.

Participation in a discussion group will take about 60 minutes to complete. The discussion groups will occur between the dates of November 21-23. Session will be facilitated during advisement period and continued for thirty minutes after school. Late bus sign-up is available for district transported students. A meal will be provided as well as a ten dollar gift card incentive for their participation. Your child is asked to participate in only one discussion group to which they will be assigned according to age, gender and primary language spoken. The discussion will be facilitated by professionals from OneWorld Community Health Center or contracted facilitators from the Public Health Association of Nebraska. The discussions have been designed to protect your child's privacy. Students will never be mentioned by name in the collection or reporting of the results. The results will be aggregated and used as part of the health center's program improvement. Participation is voluntary. No action will be taken against the school, you, or your child if your child does not participate in the discussion. Participants may withhold comment on topics in which they are not comfortable. In addition, your child may stop participating in the discussion at any point without penalty.

Please complete the section below and return it to the OneWorld Community Health Center, School-based health center at Bryan High School within 3 days if you agree to allow your child to take part in the discussion. Please note a limited number of patients will be selected to participate in this discussion, so please return this consent as soon as possible. Your child will be notified of their selection and assigned session in writing by the SBHC during their advisement period.

If you have additional questions about the discussion, please call Dr. James Connelly at 402-991-3904. Thank you.

If you agree to your child participating in this discussion, please complete the following:

Child's name: ___________________________ Grade: ________________ Child's primary Language spoken: ___________________

Child's sex (circle one) Male Female

Child's race (circle one) White/Caucasian Black/African American Hispanic

Asian/Pacific Islander Multi-Racial American Indian or Alaskan Native

I have read this form and know what the discussion is about.

By signing, I agree my child may take part in this discussion.

Parent's signature: _______________________ Date: ________________
Phone number: __________________________

I have read this form and know what the discussion is about.

By signing, I agree participate in this discussion.

Child's signature: ________________________ Date: ________________
Phone number: _______________________

Appedix B

Consent Process

Feedback Session Consent Process

Recruitment Population Pool: SBHC Consented Students who Completed RAAPS-PH in the summer/fall 2017

SBHC Consent confirmed by OWCHC SBHC Manager

Active Voluntary Consent Requiring both Student and Legal Guardian Signature

OWCHC Researcher phone number provided if family/student have questions

Joint Principal/SBHC letter outlining Feedback Session Purpose and Process

$5 incentive for returned consent

Distributed to each student through advisement period by OWCHC researcher

Returned by student to the SBHC and stored in a locked drawer after scanning consent into students EHR by SBHC staff
Incentive provided

OWCHC researcher schedules Feedback Sessions with HS Admin (10-12 participants by grade and gender) during Advisement Period

Student notice of feedback session is sent through advisement period

Reminder notice sent 1-2 days prior to session through advisement period

Intercom Message day of Feedback Session at the beginning of advisement announced

Student presents to Feedback Session. OWCHC Navigator verifies student ID to Consent forms

Student enters Feedback session conducted by OWCHC Contractor. Student identify is blinded to facilitator

$5 incentive for participation provided and pizza offered during session

Student is reminded participation is voluntary and may choose to leave at anytime.
Feedback Session Conducted

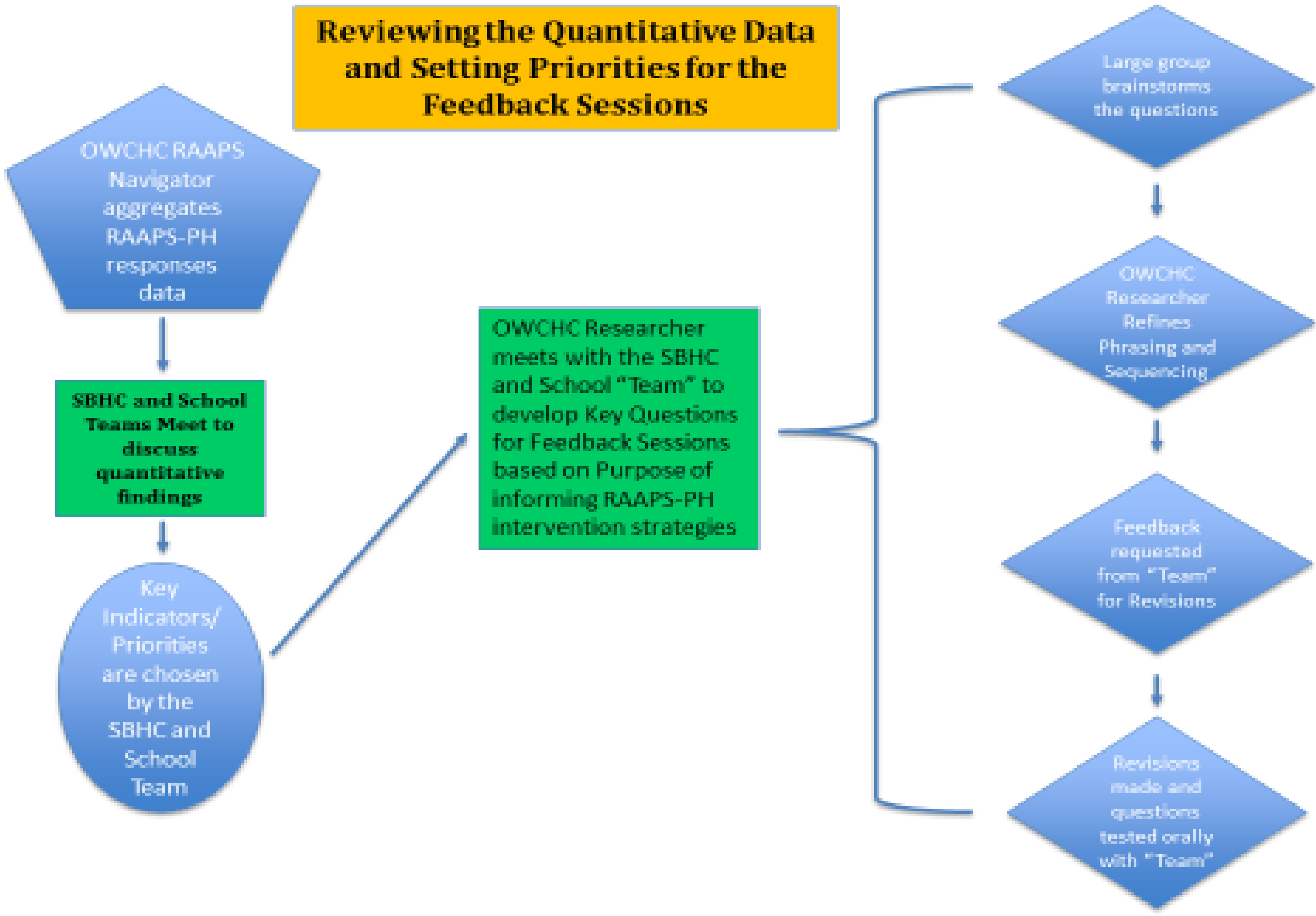
Appendix C

Rapid Assessment of Adolescent Preventive Services – Public Health or RAAPS-PH-Domains

Academic	Nutrition & Physical Activity	Protective Factors	Mental Health	Safety	Sexual Health	Substance Abuse	Violence
In the past 12 months, did you ever miss school because you had to take care of someone, work, or had other problems getting to school? In the past 12 months, has reading been hard for you? On your last report card, did you get a "C" or better in all of your classes?	In the past 12 months, have you tried to lose weight by taking diet pills or laxatives, making yourself vomit (throw up) after eating, or starving yourself? Do you eat some fruits and vegetables every day? Are you active after school or on weekends (walking, running, dancing, swimming, biking, or playing sports) for at least 1 hour, on at least 3 or more days each week?	Do you have at least one adult in your life that you can talk to about any problems or worries?	During the past month, have you been threatened, teased, or hurt by someone (on the internet, by text, or in person) or has anyone made you feel sad, unsafe, or afraid? During the past month, did you often feel sad or down as though you had nothing to look forward to? Do you have any serious problems or worries at home or at school? When you are angry, do you do things that get you in trouble? In your everyday life have you felt stressed because someone has treated you differently based on your race, ethnicity, gender identity, or sexual orientation? In the past 12 months, have you seriously thought about killing yourself, tried to kill yourself, or have you purposely cut, burned or otherwise hurt yourself?	Do you always wear a lap/seat belt when you are driving or riding in a car, truck, or van? Do you always wear a helmet when you are biking, rollerblading, skateboarding, motorcycling, snowmobiling, skiing or snowboarding? In the past 12 months, have you driven a car drunk, high, or while texting or ridden in a car with a driver who was? In the past 12 months, did you ever miss school because you had a hard time breathing, or you were coughing or wheezing because you have asthma or think you might have asthma? In the past 6 months, have you ever had to stay in a shelter, motel, or some other place because you didn't have a home to stay in? In the past 6 months, did you always have running water where you stayed? In the past 6 months, did you always have electricity where you stayed? In the past 12 months, did you ever feel hungry because there wasn't enough food to eat?	Have you ever had any type of sex (vaginal, anal or oral sex)? Have you ever been attracted to the same sex (girl to girl/guy to guy) or do you feel that you are gay, lesbian, or bisexual? If you have had sex, do you always use a method to prevent sexually transmitted infections and pregnancy (condoms, female barriers, other)? Have you ever been pregnant or gotten a girl pregnant?	In the past 3 months, have you smoked cigarettes or any other form of tobacco (cigars, black and mild, hookah, e-cigarettes, other) or chewed/used smokeless tobacco? In the past 3 months, have you drunk more than a few sips of alcohol (beer, wine coolers, liquor, other)? In the past 3 months, have you smoked marijuana, used other street drugs, steroids, or sniffed inhalants ("huffed" household products)? In the past 3 months, have you used someone else's prescription (from a doctor or other health provider) or any nonprescription (from a store) drugs to sleep, stay awake, concentrate, calm down, or get high?	Has anyone ever abused you physically (hit, slapped, kicked), emotionally threatened or made you feel afraid) or forced you to have sex or be involved in sexual activities when you didn't want to? Have you ever carried a weapon (gun, knife, club, other) to protect yourself? In the past 12 months, have you been in a relationship with someone who has put you down, yelled at you, pushed you, stalked you through social media or texting or tried to control where you go, who you talk to, or what you wear?

Appendix D

Algorithm for Testing Focus Group Questions



Appendix E
BEARS Focus Group Facilitation Guide

Participant Check-in

1. Have school announce location of focus groups 15minutes prior to start time.
2. Verify student ID to consent form upon arrival
3. Direct students to take a meal and find a place to sit

Welcome

1. Introduce facilitators and roles

Purpose

1. Clarification of Responses to RAAPS-PH survey
2. Youth input into strategies to promote health and school success

Procedure

1. 60 minutes with time keeping
2. Voluntary responses. Written or verbal responses. Choice in topic participation
3. Confidentiality
4. Tape-recorded for accuracy
5. Conclusion and distribution of incentive

Example Narrative:

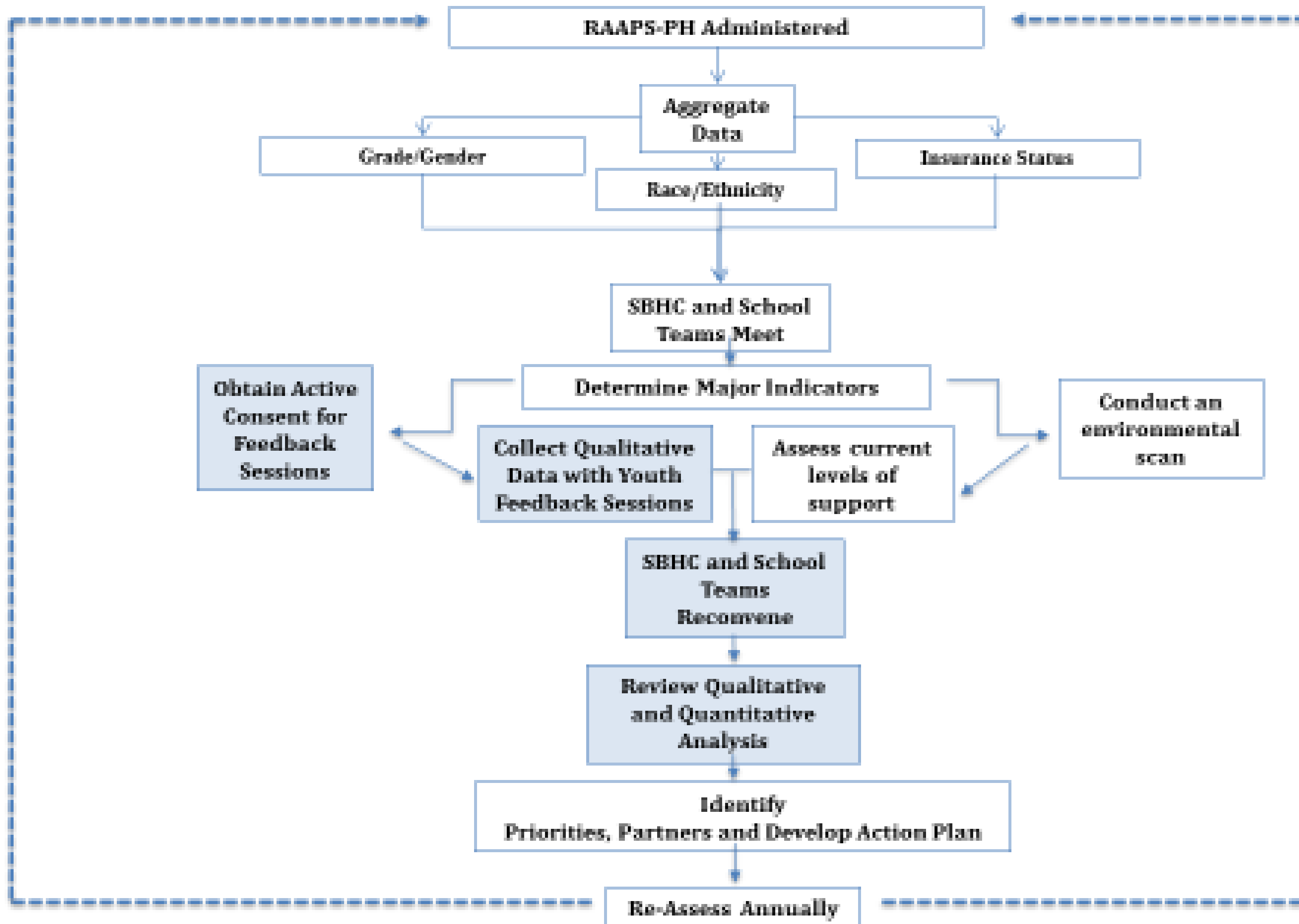
Thank you for joining us today and being willing to share your ideas. My name is _______________ I work for OneWorld Community Health Center. My job today is to help the School Based Health Center at Bryan High School better understand the responses from the health survey completed by students earlier this fall. We do not want to leave your voice out. The responses offered today during our discussion today are confidential, meaning no one outside of this room will know what you said, no parents, no teachers no SBHC staff. This is not an interview, we are want input as a group. What you say today will help inform things that should be changed or new things that should be started to help students like you to be successful. If you do not feel comfortable talking about a specific topic you can choose to remain silent, or if you are more comfortable use the post-it notes and pencils on the table to write your thoughts. You can place them in the box by the door at the end of our time together. You may also choose to leave at any time during our discussion. I will be keeping track of time and may have to wrap up a discussion on a particular topic just to make sure we get through all the questions and we get you to your transportation home on time. We will be here for 60 minutes. I will be using a tape-recorder to make sure your thoughts are accurately captured. No one other than me will have access to this recording. The microphones are sensitive so try to avoid banging around on the table. At the end of our talk, I will provide you each with a gift card. Does anyone have any questions before we get started?

Questions	Health Priority	Probes to Understand (Feelings/Thoughts/Reasons)	Probes to Clarify (Detail/Relationship)
1. What are some positive things in your life right now? (sports, activities, job, dating, relationships, upcoming events) a. Is there anything particular you are looking forward to? 2. Who is your go-to person for support or advice? What traits in that person do you admire or that make them a good supporter?	Protective Factors	What is it about that excites you? How will you feel when reach that goal?	Walk me through that experience step-by-step?
3. What kinds of things stress you out? (worries, problems at home, problems with friends, school) a. What kind of activities do you do to prevent stress? Why did you choose that activity? b. What are some things that you or your friends do to "feel better" when stressed or that help you cope? What is it about that activity that you like? Is there anything about that activity you don't like?	Mental Health/ Substance Use	How does that make you feel?	Help me visualize that? What would that look like to someone watching?
4. What kind of things are kids being bullied about? (Gender identity or sexual orientation, ethnicity, group affiliations) a. What turns a bully into "bully"? (online, in school, out of school) 5. Sometimes students carry weapons. What do you think are some of the reasons they feel the need to carry? 6. What can the school do to make sure students feel safe at school?	Violence/ Safety	What might be going through their mind?	Can you give me an example? So you are saying….paraphrase?
7. What does a healthy relationship "look like" to you? a. What does an unhealthy relationship "look like: to you? 8. Is there someone or someplace you turn to get information about sex? (parents, friends, SBHC, internet, trusted adult) 9. Do your friends talk with their sexual partners about deciding to use a condom or other methods of birth control? Why or why not? 10. What would make you more likely to use a condom? What kind of things make you less likely to use one every time you have any type of sex?	Sexual Health	Can you share how that made you feel? Can you share why someone would act like that? What things might be going through their mind?	What would that look like to someone looking in? Tell me more about that? When you say ……, what exactly does that mean? Can you give me an example?

11. Thinking about your friends who sometimes don't have enough food, water or a place to sleep, what are some things the school could do to make their life easier? 12. Thinking about your friends who have to miss school because they have other responsibilities at home like taking care of a parent or sibling or have to work. What can the school do to make it easier for them to be successful when they are at school? 13. What are some things about your community that make it harder to reach your goals? What are some things in your community to help you?	Social Determinants	What about that friend sticks in your mind? What pops in your mind when you think about that?	Walk me through how that might look? Help me visualize that?

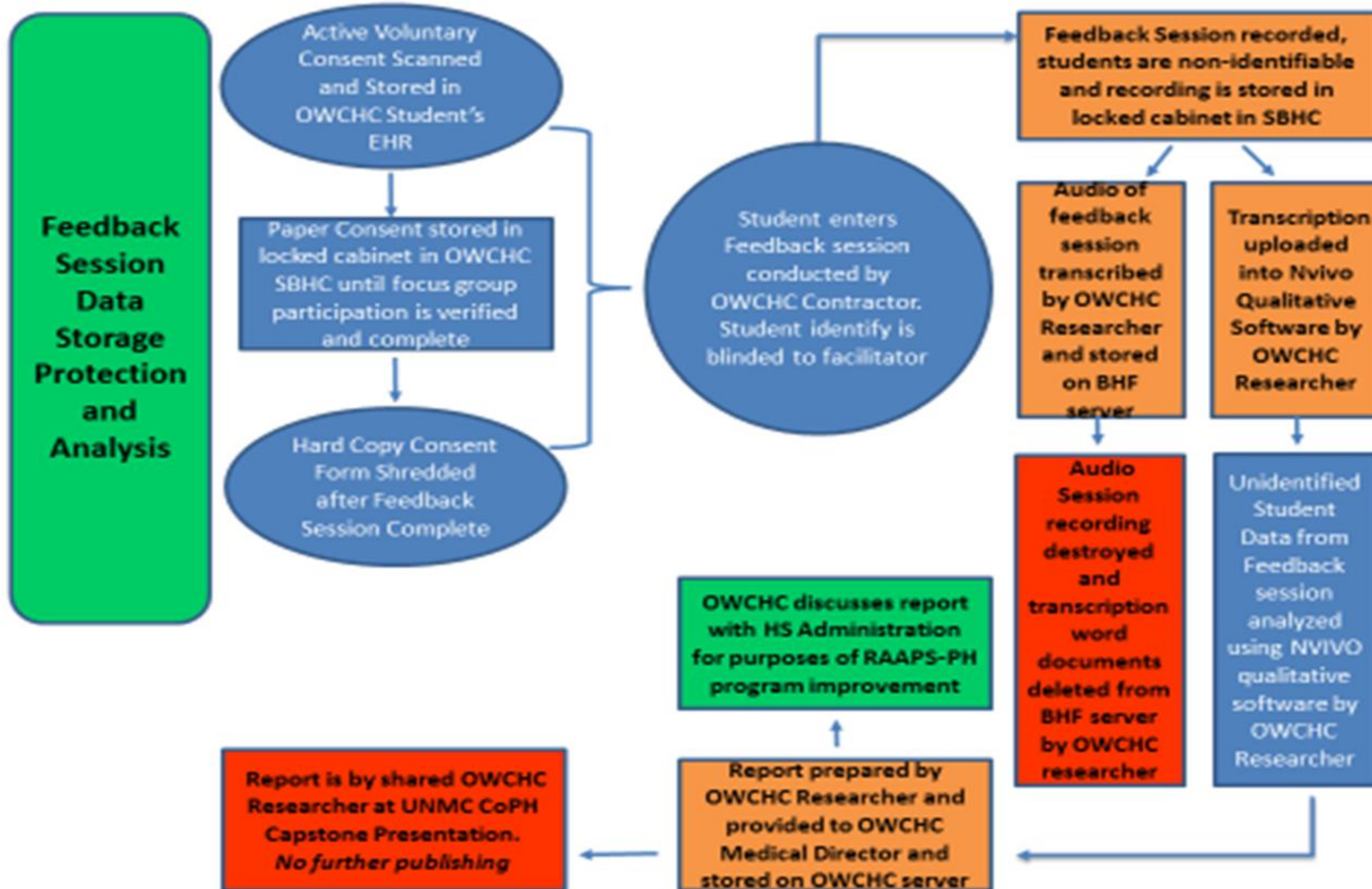
Appendix F

BEARS Health Determinants Process



Appendix G

Data Management Algorithm



Appendix H

Bears Project Code Book

Category	**PERSONAL**
Code 1	**Human Agency** (Bandura, 2004 , p.2)
Label	PEHA
Definition	The cognition, capacities or belief system internally held by an individual
Description	The students personally held sense of self that contribute to the meaning or value of placed on external influences as well internal motivators
Sub Code 1a	**Knowledge**
Label	PEHAk
Definition	The degree and possession of acquired information to support the execution of a behavior
Description	The cognitive process by which a student can distinguish, understand, remember and apply the necessary information needed to execute a particular behavior
Sub Code 2a	**Belief**
Label	PEHAb
Definition	Personally held opinion in their ability to perform
Description	The belief in one's capabilities to organize and execute the necessary components of a certain behavior
Sub Code 3a	**Attitudes**
Label	PEHAa
Definition	The favorable or unfavorable cognition process of evaluating something or some person
Description	Favorable or unfavorable attributes assigned by a student in regard to a particular activity, situation or person
Sub Code 4a	**Outcome Expectation**
Label	**PEHAe**
Definition	The perceived or anticipated outcomes of a behavior
Description	The students personal held belief that if they engage in a particular behavior associated positive or negative outcomes will occur based on their execution of the behavior
Code 2	**Human Capability** (Bandura, 1991, p.2)
Label	PEHC
Definition	The actual ability to carry out a behavior when observed
Description	The factors that a student attributes to whether they can execute a particular behavior
Sub Code 2a	**Empowerment**
Label	PEHCe
Definition	The impression that the individual possesses the necessary psychological ability to achieve to execute the behavior or goal
Description	This notion may be expressed by the student through perceived possession of knowledge, skills and resources or support
Sub Code 2b	**Self-Regulation**
Label	**PEHCsr**
Definition	Perceived ability to control the environment on matters that are important either through controlling oneself through self-monitoring, goal-setting, feedback, self-reward, self-instruction, and enlistment of social support.

Description	Perception of a student that they possess the skills to practice or not practice a particular behavior based on their sense of control over their environment or situation
Category	**BEHAVIORAL**
Code 1	**Modeling** (Bandura, 1989, p. 10)
Label	BHMD
Definition	Reproducing a behavior demonstrated by others
Description	The ability to replicate a behavior merely from observing the behavior of another
Sub Code 1a	**Motivational**
Label	BHMDm
Definition	Reasons for imitating a behavior
Description	These reasons could be from past, promised or secondhand incentives
Sub Code 1b	**Observational**
Label	BHMdo
Definition	The beliefs of seeing others participate in a behavior and trying it out
Description	Engaging in certain behavior is based because that same behavior was observed in a similar individual or role model
Code 2	**Reinforcements** (Bandura, 1989 p. 7)
Label	BHRF
Definition	The external facilitators that affect the likelihood a behavior is carried out
Description	The anticipated consequences of an action either in desired or undesired effect
Sub Code 2a	**Positive**
Label	BHRFp
Definition	The external response that affect the continuation of a behavior
Description	The perpetuation of a behavior for the purpose of a desired effect
Sub Code 2b	**Negative**
Label	BHRFn
Definition	The external responses that affect the discontinuation of behavior
Description	The perceived negative consequences that limit a behavior
Category	**SOCIAL/ENVIRONMENTAL** (Bandura, 1989, p. 15; McAlister, et al., 2008, p.3)
Label	SE
Definition	External physical, structural or social factors that influence a individuals behavior
Description	The student describes aspects within the physical environment, or institutional policies that in affect them or cultural or social practices that influence their engagement of a particular behavior
Code 1	**Conditions**
Label	SEC
Definition	The environmental circumstances, surroundings or situations that influence a certain behavior
Description	The degree to which a particular circumstance, surrounding or situation supports or opposes the students participation in a particular behavior
Sub Code 1a	**Enabling**
Label	SECe

Definition	The supportive nature of a student's circumstance, surroundings or situation the facilitate their engagement in a certain behavior
Description	Then students describes a certain aspect of a circumstance, their surroundings or a situation that strengthened their ability to engage in a particular behavior
Sub Code 1b	**Disabling**
Label	SECd
Definition	Oppositional forces or antagonists that exist within their circumstances, surroundings or situations that deter engagement in a certain behavior
Description	The student describes limiting or hostile circumstances, surrounding or situations that make engaging in a particular behavior difficult
Code 2	**Supports**
Label	SES
Definition	The level of emotional support from others within the individuals social network that empower or disempower engagement of behaviors
Description	A student describes supportive relationships or describes the lack of supportive relationships in their social network
Sub Code 2a	**Enabling**
Label	SESe
Definition	The positive encouragement or rewards offered by supportive individuals that promote positive behaviors
Description	The student describes someone that cares for them, the notion that they are cared for or that others have their best interests in mind
Sub Code 2b	**Disabling**
Label	SESd
Definition	The lack of encouragement or perceived punishment offered by an individual's social network
Description	The students describes a sense of being alone or that no one cares about them. That those in their social network have nefarious intentions when it comes to the students well-being
Code 3	**Materials**
Label	SEM
Definition	The resources and supplies that are available or not that enable an individual to engage in a particular behavior
Description	The students describes materials that either supported or distorted their ability to engage in a particular behavior
Sub Code 2a	**Enabling**
Label	SEMe
Definition	The supportive nature of available materials that facilitate engagement in particular behaviors
Description	The student describes materials that supported their ability to engage in a particular behavior
Sub Code 2b	**Disabling**
Label	SEMd
Definition	The sense of diminished or lack of. Antagonistic materials that materials that support a behavior
Description	The student describes limited materials that make engagement in a activity or behavior impossible or report negative or false messages through print, verbal or social channels that inhibit uptake of a certain behavior.