SUBSTANCE ABUSE SCREENING FOR AT-RISK YOUTH IN BLUEFIELDS, NICARAGUA

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"Yearly, here at the university, we graduate 500 students, and [I'm] sure we don't have 500 jobs waiting for them."

Picture taken in Nicaragua. By Maragret Haltom.

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ABSTRACT

Background The purpose of this study was to identify factors related to substance abuse and explore concepts necessary for future development of a culturally appropriate substance abuse screening tool targeting at-risk youth in Bluefields, Nicaragua. **Methods** This secondary data analysis was guided by a qualiative descriptive approach using thematic analysis. Seven focus groups with young adult women were conducted, including either young adults, teachers, or parents. **Outcomes** The major themes realted to substance abuse and screening barriers which emerged from the interviews were: (1) issues related to economic contextual factors, risky behaviors, and the at-risk population; (2) local resources and barriers to accessing them; and (3) grassroots ideas for action related to regionally relevant solutions, sports and engagement, and health communication.

KEYWORDS

Nicaragua, Substance Abuse, Youth, Adolescents

INTRODUCTION

Alcohol use, abuse, and dependence among the adolescent/young adult (AYA) population in Nicaragua is a significant health issue. The World Health Organization (WHO) has made an effort to decrease alcohol consumption in Nicaragua to some avail: in those aged 15 and older, the average recorded and unrecorded alcohol consumption per capita has decreased, according to a study conducted in 2003-2005 and one in 2008-2010.[1] While this data is indicative of progress in Nicaragua as a whole, it does not include disaggregated data by regions or cities within the country and does not reflect adolescents younger than 15 years of age. This can be misleading for those areas in which alcohol abuse is much higher and affects the younger AYA population.

Of particular note, Bluefields, Nicaragua, is a small city of the Southern Caribbean Autonomous Region on the Caribbean Coast of Nicaragua. This community experiences significant economic migration, where the generation of working-age adults leaves the country to work on cruise ships to financially support the remaining family members through sending remittances back to Bluefields and surrounding communities.

A subsequent phenomenon is that there are AYA living with other family members, such as grandparents, aunts, or uncles, rather than their parents.[2] As a result, the AYAs are left without a strong family support system and significant unstructured or unsupervised time. This puts this population at risk for increased alcohol consumption and eventual abuse of other drugs such as cocaine and marijuana.[3] The purpose of this project was to identify factors related to substance abuse, and explore concepts necessary for future development of a culturally appropriate substance abuse screening tool targeting at-risk youth in Bluefields.

METHODS

This secondary data analysis was guided by a qualitative descriptive approach utilizing thematic analysis. Its purpose was to explore concepts necessary to develop a culturally appropriate substance abuse screening tool targeting at-risk youth in Bluefields. The data analyzed were previously collected in Bluefields using an open-ended interview protocol with focus groups from different ethnic groups and perspectives. In October 2011, four focus groups with young adult women were conducted, and in August 2012, three additional focus groups were conducted including either young adults, teachers, or parents.

Definition of Terms

In the review of the literature conducted to guide this study, the focus was primarily on alcohol and evidence-based alcohol screening instruments. For the purposes of this study, focus group and key informant interview qualitative data were analyzed for any substances considered by that population to be considered dangerous. This study attempted to identify which populations are considered to be "at risk," meaning groups or age groups that are particularly vulnerable to exposure to substance abuse. The primary population focus of this study is AYA, including those who were 18 and under, but with an emphasis on children under 12.

Sample

In October 2011, four focus groups with young adult women were conducted (ranging from 3-8 participants each), and in August 2012, three focus groups were conducted including either young adults (n=4), teachers (n=6), or parents (n=8). Community members living in Bluefields who were in these groups were recruited through schools and community partners. Focus groups were conducted in the language participants chose so that no one was excluded based on language and were conducted in Spanish, English, and Creole.

Setting

The setting for this study was in Bluefields, Nicaragua, in partnership with a non-governmental organization (NGO) and three secondary schools in the area (one private and two public). Once the data were analyzed, findings were shared with the NGO and school partners.

"They are adolescents according to their age. But according to their status of life, they have become young adults."

Procedure/Data Analysis Strategy

The original study received Institutional Review Board approval from the University of Miami. The faculty mentor used a semi-structured interview guide with focus groups and key informants in order to illicit information about themes that focused on perceived increased risk to adolescent and young adult girls specific to increased substance use/abuse, risky sexual behaviors, and risk for intimate partner violence. This increased risk was secondary to familial economic migration, an important finding discussed below and noted by Mitchell, Steeves, and Dillingham.[2]

This secondary data analysis was found to be exempt by the Institutional Review Board of the University of Virginia. The primary investigator analyzed existing de-identified focus group and key informant interview qualitative data using a descriptive qualitative approach and thematic analysis. The researcher independently coded all transcript and field note data utilizing open coding and organized through the online data management platform Dedoose. The faculty mentor independently coded approximately ten percent of transcript data to confirm agreement on emergent findings.

Once data were coded, the researcher and mentor discussed meaningful strips, categories of data, and, ultimately, emergent themes. Findings informed constructs necessary to be included in a proposed culturally tailored substance abuse screening instrument specific to at-risk youth in Bluefields. Analysis was combined with the in-depth systematic review of the literature to inform development of a culturally appropriate screening instrument.

OUTCOMES

Interviews from four focus groups composed of young adult women (sample size ranged from 3-8 participants each) and three focus groups composed of either young adults (n=4), teachers (n=6), or parents (n=8) yielded results concern-

ing health issues in Bluefields; they all expressed similar concerns. The three major themes related to substance abuse and screening barriers which emerged from the interviews were: (1) identified issues related to economic contextual factors, risky behaviors, and the at-risk population; (2) local resources as well as barriers to accessing them; and (3) grassroots ideas for action related to regionally relevant solutions, sports and engagement, and health communication considerations.

Familial Economic Migration and Subsequent Perceived Risks

Economic contex. Lack of work and economic opportunity emerged as an identified barrier to adolescent health. A key informant stated, "yearly, here at the university, we graduate 500 students, and [I'm] sure we don't have 500 jobs waiting for them." The focus groups and key informants alike reported this lack of job opportunity in Bluefields contributed to an immigration either to the West Coast of Nicaragua or outside of the country for work. This flight occurred in working age adults, leaving the younger population with their aunts, uncles, or grandparents. These adults, who are often parents, sent remittances back to their families to support them. In an interview with a focus group, the researcher asked: "So people have to leave the country to go earn money, send money back, and support their family. How does that affect the people who stay here in Bluefields?" A participant responded:

> "It affect[s] them bad[ly] because they no have work, they no have where to go, maybe they no have family [to] take them home...And they just have to wait 'til the one that alway[s] send[s] money."

Picture taken in Nicaragua. By Aubrey Doede.

When asked how the family members and specifically the children dealt with their parents or support being gone, one person said they cope by drinking and smoking, for "they feel that is the best solution."

Risky behaviors. Drug use, teenage pregnancy, and violence were identified as health concerns for adolescents in Bluefields. When asked, "What would be do you think the most important health issue…the first one in your mind that you think would be most important to change with adolescent health?," multiple women replied in unison, "Drugs." The drugs spoken of were alcohol, marijuana, and cocaine. While the legal drinking age in Nicaragua is 19, this law is not strongly enforced in Bluefields. One person stated, "They say that they don't give drinks to underage but that's not really true. They're just interested to sell and make business."

These drugs were found to be interrelated to teenage pregnancy and violence. Informants said when parents are out of the country working and children are left unattended, they begin partaking in risky behaviors to occupy their time. This included drug and alcohol use, which then leads to violent behavior between groups of adolescents and risky sexual behaviors. One parent stated, "there are boys, gangs, that teach (my son) to do things, and if he doesn't do them, they hurt him. They abuse him." When a parent was asked how this could be addressed, she stated, "We have to be a part of their life when they are growing up. And we are not."

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At-risk population. All children and adolescents in Bluefields were identified as at-risk by the focus groups and key informants. When assessing if drugs were more common in adults or adolescents, several women replied, "young people." Gender was not found to be an issue related to helping better identify at-risk youth, as informants reported substances are used almost equally by both boys and girls. One key informant stated:

> "We have girls 14, 15, 16 years, not only doing marijuana, they are also doing everything, and [cocaine]. And we also have our prominent, good looking, healthy, Afro-descendant youths doing the same thing. Drugs, drugs, drugs, drugs. After you become so much into drugs, it start[s] to become a problem for society because you start doing things that you are not supposed to do."

When asked how the parents being away from home can impact this population and then Bluefields as a whole, one individual said:

> "The impact…is very high in the sense that when that happens, then you have some sometimes the homes broke up. Then the kids end up in drugs and then it affect[s] the whole system. And we go right back around in the economical situation because we have kids up here…[whose] parents [weren't] there behind them to make it a profession. They end up in drugs, they're not helping, they [are] not contributing…to the economical situation in Bluefields."

The youth whose parents work outside of the country were identified as the most at-risk group, as they often lack a consistent support system, guidance, and supervision. 19 of 23 participants interviewed in the focus groups stated they had family working abroad.

Local Healthcare Resources and Barriers

Nicaragua's healthcare system is a socialized medicine model, meaning healthcare in hospitals and government clinics is provided free of charge through the Ministerio de Salud (MINSA). There is also specialized psychological care in Bluefields, provided by the Counseling and Psychological Services (CAPS) center for those who have mental health and substance abuse issues. The traditional healthcare clinics in Bluefields were considered by many participants to be beneficial, and many preferred seeking traditional treatment before going to the hospital. Care given in these clinics consisted of local herbs and teas used in unison to treat specific ailments. After this data was collected, the MINSA hospital in Bluefields opened a substance abuse detoxification unit.

Healthcare providers and the level of demand on the public healthcare system were identified by participants as barriers to preventative healthcare services related to substance abuse, such as screening. There are private clinics available to receive care, but these cost money, which several focus groups discussed as a barrier. As a result of both the demands on the healthcare system and the economic situation in Bluefields, priority is given to those with acute medical problems, leaving those with less demanding health problems waiting for potentially longer periods of time. This population additionally rarely had the financial means to be seen in a private clinic for more timely care.

Additional barriers perceived by participants, in addition to the healthcare system, were specific to healthcare providers, in that some nurses and doctors were found to give "rough attention" and were perceived to dislike their jobs. One individual stated, "They don't attend if they don't see you dying…it's kind of disappointing. And some people walk out… feeling bad…and go home."
Specific to pediatric care, another participant stated:

> "In Bluefields, our problem in *salud* [health] right now is that when children then get sick, no medicine. If you walk to a health center, with your children sick, [they] give you one paper and tell you how much medicine [to] buy. And if you no got money [to] buy medicine, your children will stay sick and never [get] better and you have problem sometime where you carry them to a health center. There they no got the machine for tend children, so they send you to Managua."

Grassroots Ideas for Action

Regionally relevant solutions needed. Key informants and focus groups stated they were not interested in having groups from other places and backgrounds try to solve the issues in Bluefields. While many complex solutions had been offered, the locals stated they preferred more regionally relevant measures to addressing the substance abuse issues seen in adolescents. One key informant spoke of several instances where outside groups would come, do positive work for a short period of time, and then leave. One stated, "We don't want people to come invent what has already been in-

vented." This is a critical consideration when approaching both describing these phenomena, and when developing potential strategies to address them.

Sports and Engagement. Many stated the use of sports, such as baseball, could be beneficial; it was seen as something to occupy the time of the younger population instead of allowing them the time to experiment with substances or participate in risky behaviors. Another solution by a focus group consisted of having a support group for adolescents whose parents or family members are out of the country working. It was believed this group could offer the guidance and support those children may not be receiving at home. One key informant believed education and the empowerment of leadership was focal in solving the issues youth face. He stated:

"The[y] give you one paper and tell you how much medicine [costs]. And if you [don't have] money to buy medicine, your children will stay sick and never [get] better."

"What we need to do is to strengthen the leadership of young people. Also we need to continue creating conscience within our own people that everything that affect one directly affect all of us indirectly. What creates a conscience is not 1 or 2 or 3 or 1 more things, it needs to be permanent. People need to be here because trust me, if you give a teenager a workshop a capacitation, about proper use of condom[s], about the different sexually transmitted diseases...in that one workshop, he is just going to listen. The second one, he is going to listen again. Probably in the third or the fourth one, he is going to start getting conscious...That's just one step. The other step is for him to start putting in practice what he had learned."

Health Communication. When asked the best way to disseminate information about support groups or activities, answers included the radio, internet, and posters in schools and playgrounds. It was found that the older population believed the radio and schools would be best, while the young adults believed social media websites, such as Facebook, would be the most efficient.

DISCUSSION

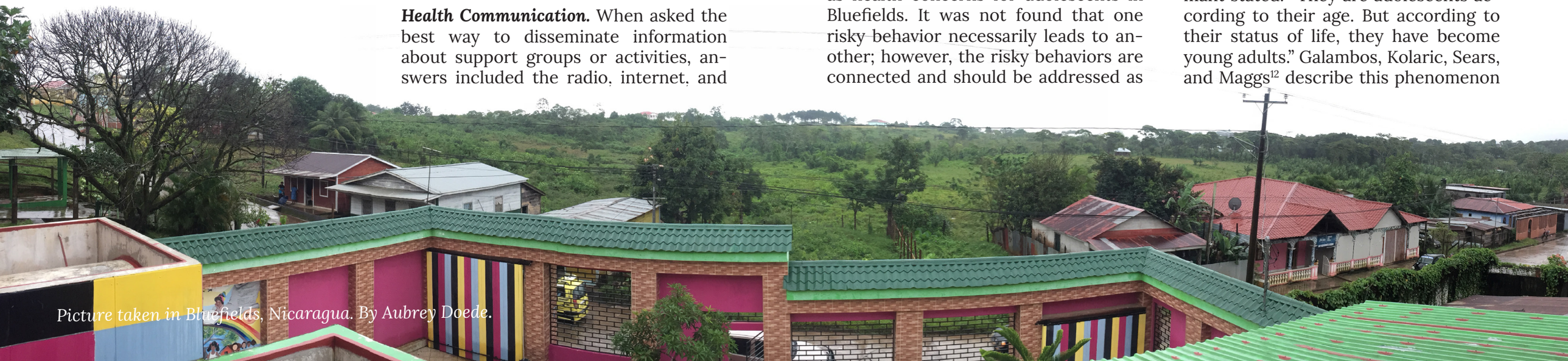
Familial Economic Migration and Subsequent Perceived Risks

Economics. A common theme of each focus group and key informant interview was the migration of working age adults out of Bluefields to find better paying jobs. This familial economic migration is the second largest form of income in Bluefields and often leaves family members gone for 8-10 months of the year.[2] Positive peer examples for adolescents in Bluefields were mentioned and are a part of the group of working-age adults who leave the country for work, leaving the adolescents without role models. Risky behavior then develops as the result of this lack of parental supervision, receiving increased money gained throughremittances, unsupervised time spent outside, and lack of role models (Figure 1).

Risky behaviors. Drugs, teenage pregnancy, and violence were identified as health concerns for adolescents in Bluefields. It was not found that one risky behavior necessarily leads to another; however, the risky behaviors are connected and should be addressed as such. Intervening at any point with any risky behavior has the potential to prevent future risky behavior. Drug use, including alcohol use, may lead to impaired judgement, thus resulting in an unplanned teenage pregnancy or violent situation.

One study found "youth identified with substance problems are more likely to engage in risky sexual behaviors during adolescence and to continue risky sexual behaviors to the extent that substance problems persist" (p. 181).[10] The stress of a teenage pregnancy may influence reported stress-relieving activities, such as drinking alcohol. Violence experienced by many young men in Bluefields often results from gangs. Youth involved in gangs are more prone to participate in unsafe sexual behaviors, which also increases the risk of exposure to sexually transmitted infections (STIs), including HIV.[11] A former study[2] also found there is perceived potential for STI transmission due to extramarital affairs when one member leaves the country to work. An STI would further complicate a teenage pregnancy, creating a potentially perpetuating cycle of negative health outcomes.

Perception of maturity. One key informant stated: "They are adolescents according to their age. But according to their status of life, they have become young adults." Galambos, Kolaric, Sears, and Maggs[12] describe this phenomenon



Picture taken in Bluefields, Nicaragua. By Aubrey Doede.

as subjective age, defined as "self-perceived age or the age that one feels" (p. 310). They hypothesized "if subjective

age is a marker of the adolescent's sense of maturity, then among adolescents of the same chronological age, higher levels of adult-like behaviors, such as smoking or sexual experience, should be associated with older subjective ages" (p. 311).[12] This phenomenon is relevant to adolescents in Bluefields, as they are mat-uring to fill the missing adult population gap in Bluefields.

"We need to continue creating conscience within our own people that everything will affect one directly [and] affect all of us indirectly."

No screening instruments found in the literature screen the adolescent's self-perception of maturity or readiness to assume adult roles, such as drinking alcohol and engaging in sexual relationships. The two studies conducted on perceived maturity confirmed the initial hypothesis and concluded that "an older subjective age among adolescents was correlated significantly and positively with several problem behaviors (e.g., substance abuse), behavioral autonomy, and aspects of peer relationships such as association with deviant peers and involvement with other-sex peers" (p. 309).[12]

Local Healthcare Resources and Barriers

Resources. It is important to note that since these data were collected, there has been significant concerted effort to integrate traditional and natural medicine into the mental health services provided by CAPS. The traditional health clinics throughout Bluefields also have the potential to serve as a primary and secondary prevention service for adolescents.

Barriers. While healthcare in Bluefields provides free care to all, limited resources inhibit these settings' potential to be sites of primary or secondary prevention. This leaves locals who are not emergently sick feeling as if they are not as important to healthcare providers. This discourages adolescents from going to the hospital, which subsequently prevents the opportunity for primary and secondary prevention. Systematic screening of those who may not yet abuse, but instead are at risk for abusing, may improve health outcomes in this population. Preventing risky behavior may prevent the serious health conditions the hospitals are forced to use resources on. Therefore, lobbying for primary and secondary preventative services is a key component in addressing both the high substance abuse rate among adolescents as well as stigmas against accessing these healthcare resources.

Grassroots Ideas for Action

Regionally relevant solutions needed. Key informants and focus group participants made it clear they do not want the resources and ideas from outside groups to address the issues in Bluefields. Instead, participants want to use the culture and resources already there to identify and solve issues the area faces with economic familial migration and subsequent adolescent risky behavior.

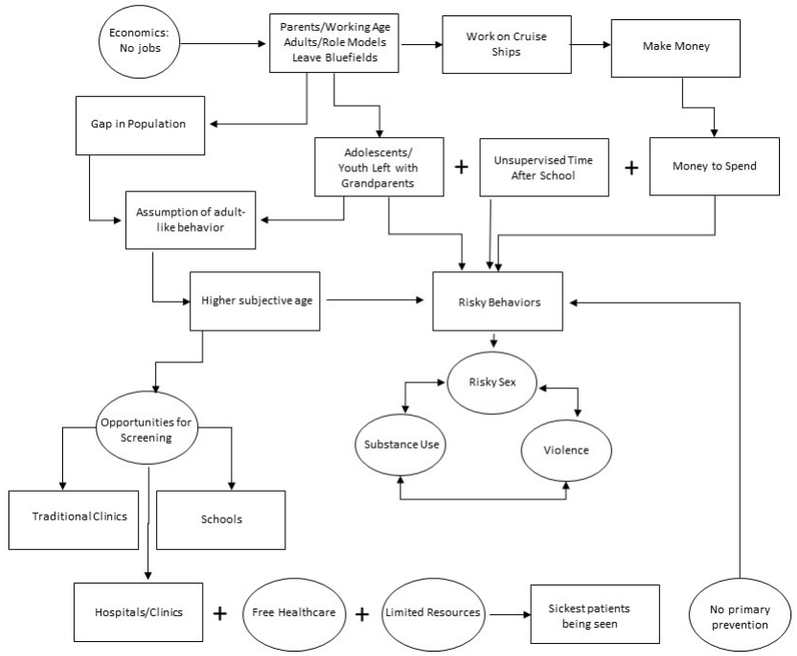


Figure 1. Pathway of identified, interralted issues that lead to risky behavior in Bluefields.

No screening instrument found in the literature was relevant to Bluefields. Therefore, the results from the focus groups and key informant interviews should be used to tailor a culturally appropriate substance use screening instrument specifically for Bluefields in partnership with key stakeholders and community members.

Sports and engagement. Many participants mentioned the use of sports and other engaging activities as a solution to adolescent risky behavior. It is believed that the adolescents are bored and fill their time by using drugs or getting involved with gangs; if more activities were offered, the youth would be less likely to participate in risky behavior. However, no one mentioned how this engagement would work. Offering sports and other activities requires resources, places to play the sports, and supervision. Without these, the potential for more violence and risky behavior may increase, as sports may promote competition and hierarchy. A study by Elliot found: "During junior and senior high school, a clear adolescent status hierarchy emerges, and much of the violence at school is related to competition for status and status-related confrontations."[13]

Health communication. There were a variety of methods mentioned to disseminate information, including the radio, internet, and posters in schools and playgrounds. As different age groups focused on different types of communication, it is believed descriptive research on the most accessible, health literacy-appropriate, and wide-reaching communication method to the adolescent population needs to be conducted. In the meantime, adolescents

who feel strongly about speaking to their peers about health could lead this effort to get targeted information to AYA in Bluefields.

Strengths and Limitations

Strengths. Data concerning Bluefields, Nicaragua, is scarce, often outdated, quantitative, and not disaggregated from national data. The data in this study was gathered from primary sources, allowing for a qualitative analysis. This allowed for a better understanding of the depth of the phenomenon experienced by those in Bluefields. The focus groups and key informant interviews also promoted a more intimate setting for collecting data, potentially making and allowing those present to be more comfortable discussing personal issues. Though the first author did not collect the primary data, he traveled to Bluefields for a 10-day clinical immersion and,therefore had some personal context for identified issues and resources.

Limitations. The researcher who analyzed de-identified transcriptions was not present during focus group and key informant interviews. Transcribed interviews gave the researcher conversations verbatim but did not allow the researcher to detect any emotion that could change the meaning of the strips of data collected. The phenomenon described herein requires an evidence-based solution to be implemented through grassroots partnership and collaboration. Data were collected between two visits over 5 years ago, meaning issues relevant to focus groups and key informants may have already been resolved or different.

Nursing Practice Implications

Systemic population-level screening program. Primary and secondary prevention are necessary to address the risky behaviors associated with substance abuse health outcomes in AYA living in Bluefields. Potential screening locations could include schools, hospitals and clinics, and traditional health clinics. Due to the lack of resources devoted to preventative services in hospitals and clinics, schools and traditional health clinics may be the best places to screen for at-risk youth. Hospitals and clinics should still be included in primary and secondary prevention; however, screening here may only serve more acute patients. Teachers and school nurses will have access to more children and a wider age range. Therefore, systematic screening can target those who do not yet abuse but are at an increased risk.

CONCLUSION

Familial economic migration in Bluefields, Nicaragua, is related to higher subjective ages in youth. This perceived maturity involves the assumption of adult-like behavior, such as drug use, violence, and risky sexual encounters. While there are evidence-based solutions in the literature for the identified issues, participants adamantly prefer the use of regionally and culturally relevant grassroots solutions. Hospitals and clinics in the area provide care for all, but, due to lack of resources, primary preventative care is not readily available; resources, including time and care from healthcare workers, are used for more acute patients. Grassroots ideas include the use of sports and other activities to engage the youth and occupy their time so as to prevent risky behavior. This requires resources and supervision that may not be available and could potentially create further problems, such as gangs. Traditional health clinics and schools present an opportunity to screen youth before risky behavior ensues, but this will require additional training to teachers and a validated screening instrument for nurses. More research needs to be conducted to empirically test screening instrument constructs related to subjective age; this data should then be tested for specificity and sensitivity to the adolescents in Bluefields.

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