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## An Innovative Teen-Centered Antenatal Care Model Compared to Standard Antenatal Care in Jamaica

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Abstract- The purpose of this study was to explore the perceptions of pregnant adolescent mothers visiting two antenatal clinics in Jamaica. Findings of focus group interviews held at a standard clinic and a teen-centered clinic were compared in terms of feelings and experiences, coping strategies, strengths, hopes and challenges faced, desires and needs or future plans, as well as perceptions of the community and healthcare provided. The teens described feelings of disappointment, sadness, betrayal, persecution, as well as renewed maternal support, strength and determination to complete school. The significance of maternal support to female adolescent mental health and resilience demonstrated in this study supports previous international research. A "Psycho-Social Determinants of Maternal Adolescent Health Model" is introduced that provided guidance for the thematic analysis of study findings. Innovation in the infrastructure of the teen-centered clinic, expansion of the roles and philosophy of the staff, as well as a structured group prenatal care delivery model are all innovations that may support the Jamaican maternity care system in achieving the Post-2015 Universal World Health Organization Goals for health.

#### I. Introduction

his study examined the perceptions of pregnant adolescents visiting Jamaican antenatal clinics. The researchers were concerned with adolescent pregnancy, its high incidence, and its relationship to psychological distress and school drop-out. Finally we explored adolescent maternity care as an indicator of gaps that could be targeted for future priority programming in the maternal newborn healthcare system. This paper will focus on the perceptions of the focus group participants that are concerned with the healthcare provided within the context of the Jamaican healthcare system.

Jamaican policy makers within the healthcare, educational and social care have enacted programs that synergistically have addressed teen pregnancy. Once one of the highest in the Caribbean, the adolescent pregnancy rate (ages 15-19 years) decreased from 137 in 1975 to 72 in 2008 (Serbanescu 2010). After the policy, "Re-Integration of Adolescent Mothers into the

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Formal Education system", was implemented, teens were permitted to return to their secondary school of choice following the birth of their newborn (Williamson, 2013). Jamaica's strategic plan (Planning Institute of Jamaica, 2009) emphasizes prevention of pregnancy and support of adolescent mothers in to the Post-Millennium Development Goals (MDG) era since, teen pregnancy contributes to a significant percentage of the Jamaican mothers who access prenatal care late, experience preterm birth and other life-threatening obstetrical complications (Servanescu 2010).

Jamaican has a two-tiered healthcare system. The greatest population demand and the bulk of healthcare dollars are spent in the public sector with a small portion invested by private corporations for insured or self-pay patients (PIOJ 2009). For many years, publicly funded maternity care has been delivered in the standard format, ubiquitous to many developing countries. Limited financial resources have restricted the amount of facility space, human resources and infrastructure that can be provided by the public healthcare system. Consequently antenatal clinics (other than the Victoria Jubilee Hospital) can only be provided once per week at A and B level (level I and II) hospitals in large urban centers, while the 8 outlying Centers of Excellence (public health clinics) and rural satellite clinics provide women's health services and maternity care one to three times per week depending upon the demand and location. The Victoria Jubilee Hospital began a pilot project in 2009 to provide care to pregnant adolescent mothers in a separate waiting room in which prenatal teaching could be tailored to their developmental and learning needs. Shorter lines, a nutritious drink and air conditioning were some of the conveniences provided to support an environment that was more conducive to learning. Typically, on Antenatal Clinic days, adult patients continued to wait in long lines or in a crowded waiting room for 1-5 hours with similar types of antenatal teaching. However an attempt was made to make the wait for the adolescents more productive. The results were never fully evaluated. Despite the positive anecdotal feedback received, one of the goals of this study was to compare and contrast the perceptions of healthcare delivery for the two models and to provide an informal evaluation of the teen-centered care. Thematic analysis of the focus group findings was informed by a model developed by one of the authors (Stevens, R). In this framework entitled, "Psycho-Social Determinants of Maternal Adolescent Health". The model hypothesizes that the main determinants of teen health are degree of isolation from family, community and society. There are five domains: 1. Integration into family & autonomy, 2. Integration into community & culture, agency and acceptance, 3. Integration into culture & level of Self Esteem, 4. Life Skills, critical thinking, negotiation, financial competency, resilience and 5. Economic Power, education, job skills (See Figure 1). Culture within families, communities and society is a driving force. The implication is that minimizing isolation is the strongest, most effective measure to promote health. Additionally, strengthening the teen's "sense of belonging" becomes the centralizing priority in care delivery. The paper will conclude with implications and applications of the model.

#### II. Resources & Techniques (Methods)

Convenience sampling methods were used to recruit adolescent girls, ages 12-17 years old who visited the antenatal clinics at two urban hospitals in Jamaica. As mentioned, one hospital provided a "Teen Pregnancy Clinic" while the other delivered care in a standard antenatal clinic in which both adolescents and adults waited together for appointments. Two trained research assistants verbally solicited the teens who attended clinic. Only adolescents who were free of learning disability and were able to speak, read and write English were included in the study. The researchers complied with Jamaican age of consent policies requiring child assents and parental consents for participants who were 15 years old and under.

Although the initial goal was to include at least 16 mothers, the focus group sample consisted of 13 pregnant adolescents, seven from the standard antenatal clinic and six from the Teen Pregnancy clinic. Two of those who participated in the focus groups had previously participated in the individual interviews. The analysis of the 30 individual interviews are published

elsewhere (Wilson-Mitchell, Bennett Stennett 2014). The composition and demographics of the focus groups can be found in Table 1. The focus group discussion were conducted in a private space at both hospitals either prior to or following scheduled prenatal appointments. In an effort to provide the participants with useful compensation, refreshments were provided as well as department store and supermarket coupons worth \$1000 JAD (approx. \$10 USD). They were encouraged to purchase supplies for their babies. The researchers prepared and facilitated the focus group using the guidelines of Kruger (1997) and Morgan (1998). This paper will describe the focus group findings.

The focus group interview guide was comprised of six guiding questions: 1. What are your experiences of being a pregnant teenager? (probe: family, partner, peers, community, lifestyle, health professionals, school); 2. How do you feel about being pregnant? (probe: feelings of anxiety, insomnia and depression, suicidal); 3. What are your dreams and hopes for the future? (probe: career, child, relationship with partner/baby's father, friends and family member parents/guardian); 4. What are the barriers to achieving your dreams and hopes?; 5. What type of things do you believe will help you to achieve your goals for the future? (probe: family community, government); 6. What personal strengths do you have that will help you to cope with being a pregnant teenager? It was our desire to solicit the teen's perceptions of how the clinic, government or community could generally help teens more. The two focus groups, lasting one hour each, were audio recorded. Refreshments were provided and ground rules for the group discussion surrounding taking turns at speaking, freedoms and respectful listening, etc. Content analysis was performed using NVIVO 10 software, however the difficulty with translating the Jamaican Patois dialect for NVIVO made it necessary to perform manual review of each focus group. University of the West Indies, Ryerson University, the Ministry of Health in Jamaica and the South East Regional Health Authority in Jamaica each granted ethics approval for the study.

Table 1: Socio-Demographic characteristics of the Focus Groups

Demographics	Total Population N = 13	Standard $N = 7$	Teen-Centered N = 6
Mean Age in Years	15.85(SD)	16.00	15.67
14	1	0	1
15	0	0	0
16	12	7	5
Gestational Age (months)			
6	4	1	3
7	2	1	1
8	5	4	1
Women s Center Foundation School Attendance (%)	2	1	1

#### III. RESULTS

Following are themes that are currently were coded. "TR" denotes a Teen Clinic respondent and "SR" denotes a standard antenatal clinic respondent. English translations are provided in brackets.

1. Integration into family and Autonomy: Many of the teens experienced "disintegration and desertion". Consistently the pregnancy was a phenomenon that parents, friends, community, teachers and family indicated was a disappointment and a tragedy that the teen had permitted or had allowed to take place. There was an element of malice, stereotyping and judgment of the teen. There was little discussion of the role of the boyfriend or father of the baby. The implication was that the mother shouldered all of the responsibility and burden for reproductive choices. Consequently social support was often absent initially and relationships were strained.

TR1: "look there when you going school you are form captain, you shouldn't let this happen to you" and I feel left out... that I spoil up myself"

TR5: "Sometimes I feel left out because when it just happen to me I look into myself and say look here I can't get to graduate from school and I can't get to do my exams and those things. My mother curses me and says how I make this to happen to me and I am not out of school as yet. My uncle curse me and beat me on top of it, curse me and call me dog sh-- and those things and why I go and get pregnant so early. And I end up and went and live with my boyfriend..."

TR6: "Like they would say she a breed (is pregnant) and she don't know who she a breed (is pregnant) for. Look how she young and she go get pregnant early and them sumn deh (those things), but I really don't care what they say."

SR7: First for me I was vex I ask God if it is a curse that he has carry down on me, it never happen to nobody by my mother side....the three of us get pregnant at fifteen.... I did kind of feel angry. But after a while I say; 'sex did not trouble me; is me that go and trouble it!' So I get what it comes with...

a) Integration into community and culture: The unconditional, strong support experienced by some teens from either family, friends or larger community provided a sense of continued acceptance and agency. Elective termination of pregnancy is illegal in Jamaica so initial suggestions by friends, partners and family may have been suggesting illegal and dangerous abortion. Despite the initial suggestions, all of the teens reported a champion (a father, mother or grandmother) who rejected the concept of abortion; often for religious reasons or because the mother or grandmother had also experienced adolescent pregnancy. These champions became

advocates for the teens and seemed to broker respect and support for the teenager from dissenting family members in the form of continued shelter in the home, promises to assist with infant care, and encouragement to return to school after the birth.

TR5: "And my father hear and say it happen already because they were telling my mother to let me dash it wey (throw it away or have an abortion), and she didn't do it, and my father say no he doesn't believe in that, my father say to bring it and when the baby born I can get to go back to school."

TR2: "And some are saying to dash it weh (throw it away), some are saying don't do it and everybody have their own. So it's like, now everybody treats me nice. Nobody no really show me no bad face or anything. They are always encouraging me saying when I have the baby I must go back to school and I am not to get pregnant again. So now it is alright but at first it was like you know when you can't believe they just cuss (curse) and cry, but now everybody is all right."

TR3: "Because my best friend we used to walk with and so; when I tell her that I am pregnant, she a the only person that I tell, she walk and spread it in the school and tell everybody say me am pregnant, and then one of me friend them, she really close, close... when she hear, she did call and support me and so and so; she talk to me, she even give me things for the baby."

TR5: Because all the things that I was thinking about pass through and gone, stress free. [Interviewer: "What would you think has helped you to become stress free ...?"] Well my mother because she is always there for me.

SR7: For me he (boyfriend) is always there if I send him please call me at three o clock in the morning in less than five minutes he call...

b) Disintegration from community: Lack of integration with family or community often resulting in "hiding until discovery". In many instances, teens chose to hide their growing presumptive signs of pregnancy such as enlarging breasts, belly, fatigue, dizziness and nausea. They went as far as hiding this from parents, teachers and school nurses until pregnancy was confirmed requiring their forced withdrawal from school. Some of the students decided to voluntarily drop out prior to the discovery, and only two made the decision to attend one of the eight Women's Center Foundation Schools for pregnant teens.

TR3: And then one day me find out, me friend weh a walk (who walks) and a talk pure bad things about me, my close friend, the other day I heard that she get pregnant and gone a country gone hide (went to the rural areas to hide).

c) Precarious integration and agency: There were varying levels of social and financial support from partners. Relationships appeared to be tenuous and insecure. There were concerns about financial support for the child.

TR1: "Because the mistake that he made from the beginning the first time. From that I hate him and he is wild, he is not from a poor family and he is "spoil" (permiscuous). He is good looking he is full of too much woman."

TR2: "My partner is "wild" (permiscuous) as well but I tell him any day I come and see any school girls I am going to burn him up with acid." (All of the participants laughed.)

TR3: "Well I get support from my baby father because every time that he gets pay he always gives me money to buy things for myself." [Interviewer: "So you have his support?"]" I have his family support as well because his mother buys things for me and so."

TR1: But you won't achieve anything so you just leave him, it doesn't make sense that you burn him up and then you into difficulty and you get lock up and leave your young baby

*TR4:* I say if he wants to have other woman, him have other woman. But once he is giving me my child money, I am all right.

SR4: In the beginning he was telling me to throw it away. He say he is afraid. But because his mother is a nurse, she tell him to take the baby and don't throw it away...

SR5: In the beginning I was wondering like how am I going to manage, how am I going to do this I wonder if my baby father is going to help me later on in life, and then I am saying Jah know I am going to buy a cutlass and sharpen it for him...!

SR5: When I found out that I was pregnant I told my baby father, first he was saying like I don't ready to be a father. So I was saying did I tell you that I am ready to be a mother? So he was saying like it is a mistake; so I say no it is not a mistake. It is just a situation that was not being planned for, and he told his mother.... And because my mother isn't working and he isn't working now some of the basic things that I need now, we can't buy them because funds are low. But for emotional support and stuff like that she is there for me emotionally but financially because he isn't working it is difficult.

SR3: My baby father, I cannot walk to go anywhere he is over protective. Every morning he wakes me up out of my bed. He doesn't want me going anywhere. I have to stay there with him. He is just over protective. His mother is there. His sister his aunty everybody is just there.

d) Integration into culture and level of self-esteem: This element was most often expressed in the teen mothers' sense of self and personal strengths.

TR1: "I-s (I) just don't listen to negative things just move on and head for your goals and set your mind to it, and see to it that no one or nothing can stop you!"

TR5: "Just be confident...Of yourself being a teenager, being pregnant as a teenager."

TR3: "Well I just have to believe in myself and hold up my head and make sure that I get my education and make something out of my life, although I have buck my toe at least I can hold up my head because if I put my mind to it I can do it. I can further my education and so on."

TR4: "Well family, holds my head high."

TR2: "Just believing in myself and know that this is not the last and this is an error, and although you make an error you can complete it, you know just get over it be myself and just move on and know that this is not going to be the last of me and hope is there, and just believe in myself."

The standard clinic participants reported that their strengths included perseverance,

SR7: "Anything I put my head to I always get that because I am not less, even if it take five years I have to get it."

SR5: "Because anything I put my mind to I will do it and I can do it, so if I put my mind to something and say I am going to do it no matter what obstacle may come or no matter what, I am going to try my best to do it, no matter how many times I fall down but to brush off myself and I am going to get up and move forward. So as long as I have the support of my family and they are going to say you made a mistake and falling down don't mean you are a failure but staying down. So as long as I have that support I know that I will be okay and I can go through." One of the standard clinic participants believed she had no personal strengths at all.

e) Disintegration of Self: Psychological distress was the most evident expression of cultural conflict and lack of resilience, coherence and mental healthas described by Antonovsky's Sense of Coherence Scale (Klepp et al 2007). For three participants at the standard antenatal clinic, there was evidence of prior psychological distress with the discovery of pregnancy that apparently resolved in response to social support.

SR7: "At first I did feel as if I wanted to run away, my mother did see it in the first time because normally I would watch TV and those things. And when I just find out I just keep myself to myself. I wouldn't talk to people. When I go to school, normally I would participate in class discussion. I don't really talk at school. I just sit down at the back of the class look on everybody and cry. I never use to eat and those things."

SR4: "When I was pregnant I say I want to hang myself because I say nobody is going to like me again, is not saying I don't want the baby but... My mother tell me

saying that it done come already and it can't go away, say it done come already it can't go away again."

SR6: "When I find out that I am pregnant I think that my career is over because I want to become a criminal lawyer. I think that over and done with and I start crying. (I) mix up all kind of something to kill myself and whatever, and then I go to my baby father and say 'you know I am going to kill myself' and he say 'What you say? You mad?' and him say 'Guess what? I hear about a school where you can go, name Woman Center' and then I say, really like something just come over me and that I feel good, I don't feel down again."

f) Life Skills/parenting/Critical Thinking/Negotiation/ Financial Competency/Resilience: This domain was most often expressed in the teen mothers' hopes for school, coping, and future orientation.

TR1: "At first I was sad and I regret that I got pregnant but I don't regret my child. I regret that I got pregnant because I drop out of school and I have to start all over again, I miss out a lot but I end up to start woman center(Women's Center of Jamaica Foundation) and I catch up back and me get along well (I am getting along well)."

TR1: "My plan is to because my mommy promise me that she will keep the baby and let me go back to school, is to go back to school and do my CXC and get them, and let my mother feel proud because in the future I would like to become a nurse or a paediatrician. So she says she will pay the university fee and let me become what I want."

TR6: "My future plans is to finish school I plan to become a teacher."

TR3: "Well I plan to go back to school and further my education, because before I got pregnant I usually get promotion at school. They usually promote me and I always say I want to be a lawyer so I want to go back to school and get my CXC (comprehensive exams), further my education."

TR2: "...So me (I) just think that the baby would be a barrier; but nothing try nothing done. I still want to try and go back to school I won't say I will not go back to school because they won't keep my baby or what, I just have my intention to go back to school and say yea, even if I go back to school I must can find even one person to keep the baby or my friend you understand, so me just think it is a barrier but I am not sure but I just think."

The standard clinic focus group participants described dreams of becoming a pharmacist, lawyer, accountant, business teacher, or pursuing community college to learn a trade. Only one teen of the 13 dreamt of becoming a mother.

g) Economic Power/Education/Job Skills: Socioeconomic power was the strongest drivertowards meeting this determinant. Lack of money and lack of ability, knowledge or skills became the largest barriers to goal achievement. Sometimes the support system (boyfriend, family, healthcare providers, the Women's Center of Jamaican Foundation secondary school program for pregnant adolescents) were able to be a broker for knowledge and skills that would prove to be pivotal to future goal achievement.

TR1: "A good family support people to encourage you with positive things.... I mean your parents, grandparents and aunt and some other relatives there with you to encourage you and like sometimes help out to keep the baby and so...... Like see to it that you don't miss a day from school and you don't joke it out this time. You make a mistake once."

[Interviewer: "....You say 'encouragement'. What do you mean by that?"] TR1:"I mean your parents, grandparents and aunt and some other relatives there with you to encourage you and like sometimes help out to keep the baby and so.... Like see to it that you don't miss a day from school and you don't joke it out this time. You make a mistake once."

TR2: "I think the government plays a big part in teenage pregnancy when they put out the women center, when they organized that together. I think they play a big part and their support for us because one time my cousin get pregnant and my cousin did always want to go back to school, but because in her days that wasn't going on so I think now what they really do is a big part, because you can still go back to school where you are going to a normal school where you can do your CXC (Caribbean Examination council exams) normally... You know you also have to have a work to balance because when you can go to school and guidance counselor will assist you with lunch, if you don't have any money and those things you won't get those things at CAP. You just have to stay home so whenever you don't have any money you are going to miss out a lot, because you won't go to school and beg. So I think the government plays a big part when they put women's center."

SR5: "My barrier is money that has always been a problem for me going to school and that is a problem until I can find something to do to send myself back to school, that is the only barrier."

The teens also described drivers to reach their goals including good family support, money, and support from friends who provide motivation.

h) Power/Education/Skills coming from Healthcare system: The teen mothers' perceptions of the healthcare system became a gauge for measuring whether effective empowerment was taking place.

TR4: "Well when they talk to you, they don't talk to you like to say yea I am talking to her for her to hear; the way they talk to you is like somebody cursing, that is how some of them talk to you."

TR1: "I believe that if you respect the nurse them and corporate with them, wear decent things they would like respect you back and don't be rude to you....: But from me start coming down here none of them never yet rude to me, never even when I was on wards none of them."

TR2: "I agree with TR1, because like when you are doing things that you are not supposed to do they will shout at you and hail at you. The time when I just come in down here and I never really expect nothing to do, I never really buy any dress and those things and I never really like those things, I always like shorts, pants and tights, so I wear a tights and a blouse to my opinion me did look nice, everybody tell me that I look nice. But when I come down here me and the nurse and she was like how you suppose to wear tights come to the clinic, you know that you are not supposed to wear tights come to clinic, and that is the only problem I have. But she is a really nice nurse because that was only the one time and the nurse them down here are nice, and when you show them respect they show you respect too, especially when you go to see the doctor, I think they are nice."

TR1: "The first time I came here I was in pants and a blouse and the nurse shout after me and say that I must not wear it back again. Well I didn't know that I wasn't to wear pants it was my aunty who had send me out when she saw me in the pants, but know I get to know them better."

TR3: "Some of them will get miserable when they call the name and you don't answer."

TR2: "For me none of them never yet complain, because I am from a decent home my mommy she is like strict, my grandmother. My mommy she work Saturdays and Sundays so she don't really get to go to church, but my grandmother goes to church. So I have a lot of dress I don't let none of them talk to me about, it is not too short, not too tight nor look indecent."

SR6: "My doctors they were nice....When I go (to the clinic) it's a different experience. They come in like a family to me they treat me nice. Things that I don't understand they tell me."

SR3: "I love the doctors them down here, they are nice I like them overall no problem with them."

#### IV. Discussion

The focus groups data provided complimentary information to the earlier individual interviews. The focus group findings were very consistent with the earlier interviews, published elsewhere. That is; the common themes were also noted: social support, resilience, future-oriented decision-making about career, community support, and previous history with elements of psychological distress. Despite a few tearful moments and two previous suicidal ideations in the

standard clinic group, none of the group members exhibited the same intensity of psychological distress or suicidal ideation identified by 7 out of 30 participants in the individual interviews (Wilson-Mitchell, Bennett & Stennett 2014). Instead there was a determination to return to school, achieve goals, maintain dignity and a strong display of strength to demand respect from peers and community or to "hold my head up high". The standard clinic group appeared to use more violent language (e.g., using cutlass, fighting, threats of "killing" others – either in anger or in jest). The teen clinic group offered significantly more feedback on their experience and perception of the quality of care experienced in their antenatal clinic. Overall however, the experiences in the five domains were similar.

There was rich evidence to support further development of the Psycho-Social Determinants of Maternal Adolescent Health Model. This is a global or international approach to teen pregnancy that supports cultural nuances in the teen culture of the Caribbean. This model assumes that adolescents are full of potential and inherent resilience. Healthcare providers are not always required to intervene for each determinant to be effective. Intervention in one area strengthens the other determinants. This relationship is illustrated by Figure 1. The model also implies social responsibility of the healthcare provider. Wellintentioned, good-willed healthcare providers may further isolate teens by their attitudes, medical procedures and interventions. Teens don't need or desire "prescriptive" interventions. Rather we need to "equip" teens by strengthening their resilience, negotiation skills and assertiveness. Inter-culture plays a role in the degree of family, cultural and community integration. So a teen living in a community with a "don" or gang-leader has different psycho-social determinants of health than you might find otherwise. For a teen, cultural safety might mean a community where there is cultural support and infrastructure; e.g., a community spaces that provide emotional and cultural safety for recreation, interaction and expressive creativity. The provision of cultural safety could in fact be crucial to the prevention of adolescent pregnancy.

This model is a dynamic one and so interventions will be unique for each teen culture and each new context. For example, with adolescent mothers, on this particular day it may be psychosocial needs, and on another given day it might be financial needs that need to be addressed. It's important to use the language of the adolescent. In order to demonstrate empathy, the service provider needs to speak to the mother's perspectives, visit her in her community, and not just in the clinic. On any given day, the teen's needs for strengthening her psycho-social determinants of health may change in priority and urgency. Each situation needs to be assessed as unique.

It was notable that family and community support was a dynamic process. Many family members, including the teens' mothers appeared to experience loss, grief and shock before they emerged as advocates and sources of support for the teens. As described in literature, a large portion of the population of women experience their first pregnancy during adolescence, and this cycle was apparent in some of the families of the teens in the groups (Fox 2005, Maharaj 2009, & Serbanescu et al 2010). Despite the high incidence amongst their friends and an acknowledgement of single-motherhood being a barrier or challenge to future education, none of the teens proposed any methods of curbing the trends. None of them challenged the notion that they had somehow "caused" this tragedy or "allowed it" to occur. There was discussion of the promiscuity of their partners in some cases and a high frequency of partners suggesting abortions with the diagnosis of pregnancy. However there appeared to be deficits in knowledge, critical thinking and emotional immaturity amongst the mothers; all of which are necessary if pregnancy prevention strategies are to be addressed. Furthermore the teens did not seem to consider themselves as autonomous agents in their reproductive decision-making. The phenomenon of male dominant "gender power" within relationships, as well as poverty, gender roles and social norms have all been used to explain the lack of female decision-making observed in Jamaican adolescent relationships (Chevannes 2001, Ekunadayo et al 2007, Hutchinson et al 2012). None of these pregnancies were planned, yet the mothers' resolution to participate in the challenging tasks of motherhood while trying to return to school was laudable.

This study did not examine any of the obstetrical outcomes of these pregnant adolescents. There was only one teen who described severe hyperemesis and vomiting blood. One appeared to have symptoms of vaginitis. None described gestational hypertension, diabetes, thyroid disease, sexually transmitted infections or sickle cell disease; all of which have placed Jamaican mothers at risk for preterm birth, seizures and life-threatening complications at birth. Current Jamaican statistics do not adequately track the birth outcomes of adolescent teens, however their tendency to attend prenatal care late in pregnancy probably contributes greatly to their risks for antepartal postpartal hemorrhage, preterm birth and uncontrolled gestational hypertension. In addition, the relative poverty that many teens experience implies that they lack many of the World Health Organization social determinants of health that support health in general.

And so this study's findings were examined in light of the Millennium Developmental Goals (MDG) 4, 5 and 6 (United Nations 2013). Although the maternal mortality ratio (MMR) declined from 82.2 per 100,000 live births (LB) in 1990 to 50.5 LB in 2011 (Hogan 2010),

Jamaican health policy makers report that the country will most likely not achieve the goal of decreasing maternal mortality of by 75% by 2015. Fortunately, the early neonatal mortality rate (0-6 days) annualized decline was between 1.8 to 4.8 per 1000 LB (Lozano The proposed post-2015 World Health 2011). Organization (WHO) Universal Goals will continue to prioritize the health of women and girls, promote education throughout the lifespan, and promote healthy lives. A reduction of adolescent pregnancy, improved adolescent maternity care and completion of education for adolescent mothers could be effective strategies for achieving these Universal Goals in Jamaica. The teens appeared to appreciate the teen-centered approach to care delivery. Once they learnt the expectations for clinic dress code, routines during the visit, and basic needs were met, the teens verbalized appreciation for their care givers and reported empowering communication and interactions in both clinics. However, the standard antenatal clinic set-up contributed to frustrations about the long wait and perceptions of uncaring staff and adult patients.

The focus group discussions appeared to provide a small degree of support, encouraging more disclosure, peer support and peer coaching from one adolescent to another. The animation and apparent enjoyment the teens were experiencing from group discussion and the active listening of the group facilitators was instructive. It might be helpful not only to have adolescent antenatal care in an exclusively adolescent space, but it may also be helpful to employ group prenatal care for the model of delivery. In fact, the Teen Pregnancy Clinic did provide an ideal environment for this to take place. The lactation, nutrition and parenting teachers who visited the waiting area may not have been trained as prenatal group facilitators, however this training could easily be provided. The notion of training all of the adjunct or allied healthcare staff to support midwifery, obstetrics and nursing in an antenatal clinic has been utilized in a Florida birth center, The Birth Place, by employing the JJ Way® care management system (Day et al 2014). The JJ Way® philosophy emphasizes the need for all the clinic staff to promote the tenets of access, connections, knowledge and empowerment. This frame work interfaces well with the group prenatal care model (Massey 2006). Both the JJ Way® and group prenatal care have been documented to provide improved outcomes (Day 2014, Massey 2006). These benefits include: decreasing the rate of preterm birth, lowering the percentage of low birth weight and improving patient satisfaction, compliance and early engagement of vulnerable women with prenatal care.

Universal access to healthcare and medications (PIJ 2009) for the largest portion of the population, in the lower socioeconomic levels has been a significant accomplishment for Jamaica. The next steps may be to support teen-centered adolescent clinics that utilize the existing infrastructure and staffing to deliver more purposeful and structured group prenatal care that is informed by a social justice and youth empowerment models. Other recommendation semerging from this study include: the need to continue to support and expand the education programs of the Women's Center of Jamaica Foundation, to follow up with research that discovers new ways of connecting and engaging with adolescents for reproductive education, post-pregnancy education and perhaps peer support programs that strengthen agency for adolescent girls.

In conclusion, the Psycho-Social Determinants of Maternal Adolescent Health Model stresses inclusivity and youth as a subculture within the larger culture. The model could be an effective framework from which to fashion innovative maternity care. Legally, teenagers under age 16 in Jamaica are considered minors. However this framework could prevent isolation of

adolescents and encourage participation in the decision-making process regarding their own health.

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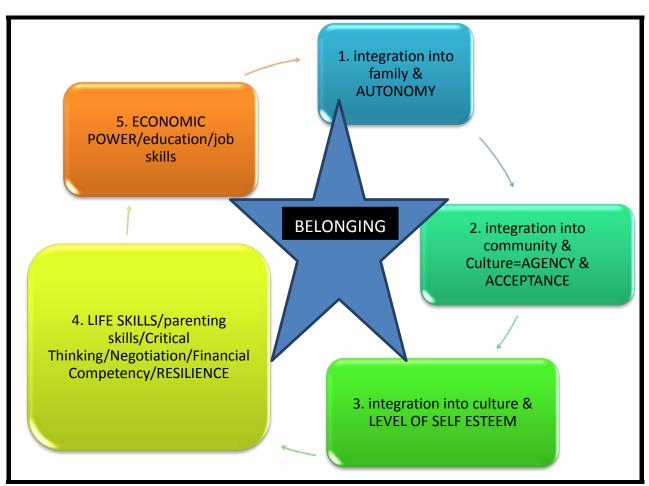


Figure 1: Psycho-Social Determinants of Maternal Adolescent Health.

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