

A Health Empowerment Theory Approach to Pregnant Adolescents 18 and 19 years of age in The Bahamas



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*Shirley Curtis, RN, RM, MSN, PhD
School of Nursing & Allied Health Professions
The College of The Bahamas*

“For too long, when an adolescent becomes pregnant, we have pointed the finger at her.

It is time we pointed the finger at ourselves.

If a girl gets pregnant that is because we have not provided her with the

- information***

- education***

- training and***

- support***

she needs to prevent herself becoming pregnant”

**(Dr. Preamilla Senanayake, former assistant Director,
International Planned Parenthood Federation)**





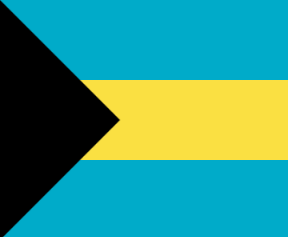
Scope of the Problem

- Adolescent pregnancy is a serious public health problem.
- Globally, 16 million adolescents become pregnant annually (WHO, 2008).
- The rates of births for teenagers 15 -17 years and 18-19 yrs are 22 and 73 per 1000 females, in the U S .
- In Latin America and the Caribbean(LAC) 25% of females became mothers before 20 years of age (Economic Commission for Latin America and the Caribbean, 2008).
- In The Bahamas, births among teenagers 15-19 yrs were 45.5 per 1,000 live births. (Health Information & Research Unit, 2008).



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Significance of the Problem

- 
- Adolescent pregnancy can result in economic, psycho-social & health problems in the female adolescent & her child (Klerman, 2004).
 - Infants are at risk for LBW, neglect, abuse & frequent emergency room visits, (Corcoran & Pillai, 2007).
 - Delaying subsequent birth promotes success in later life, (Koniak-Griffin et al., 2002).

Purpose of the Study

- to examine and describe the relationship between adolescent pregnancy and levels of Health Empowerment in 18-19 year-old females in The Bahamas.



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Adolescence

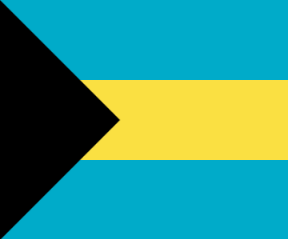
- Adolescence was defined as 10 -19 years, youth as 15-24 yrs and young people as 10 - 24 yrs (WHO Report on Young People 1986)
- Studies also vary according to cultural and legislative factors in the country.
- For the purpose of this study, pregnant females in late adolescence, 18 – 19 yrs of age will be tested
- The age of clients seen in the Adolescent Health Clinic in The Bahamas ≤ 18 yrs.



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	Terms	Conceptual	Operational
 UNIVERSITY OF MIAMI 	Adolescents	10-19 yrs old, early adolescence, 10-14 yrs old and 15 – 19 yrs old late adolescence (WHO, 1986)	Pregnant females 18-19 years old.
	Bahamian	Females born in The Bahamas who possess a valid birth certificate or papers of naturalization.	Females born in The Bahamas or who have lived in The Bahamas within the last 10 years.
	Health Empowerment	Purposefully participating in the process of changing ones behaviors and one’s environment, recognizing patterns and engaging inner resources for well-being (Shearer & Reed, 2004).	The sum of scores on the Ryff’s Scale of Psychological well-being (Ryff, 1989).
	Religiosity	The degree to which individuals exhibit the characteristic of believing in and worshiping a superhuman controlling power (The New Oxford American Dictionary, 2005). Empowerment Theory & Adolescent Pregnancy	The sum of scores on the Santa Clara Strength of Religious Faith Questionnaire – Short Form (SCSRFQ-SF) (Plante, Vallaeys, Sherman & Wallston, 2002).



Research Questions

The research questions for this study are:

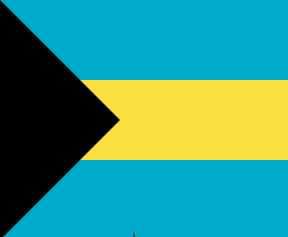
1. What is the relationship among the levels of autonomy, environmental mastery, personal growth, relationship with others, purpose in life, self acceptance and religiosity and the number of pregnancies in adolescents in The Bahamas?
2. What is the relationship between the overall level of psychological well-being and the number of pregnancies in adolescent mothers in The Bahamas?

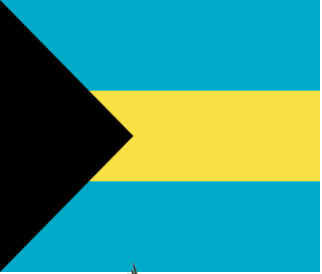


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Review of Literature

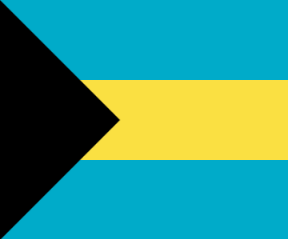
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- 
- **Adolescent Health & Physical Effects**
 - Accounts for >10% of births
 - 15% of maternal disease conditions
 - 13% of all maternal deaths world wide (WHO,2000).
 - ↑risk of maternal death among teenage girls compared with women 20 – 34 yrs. of age
(Blum & Nelson-Mmari, 2004, Mayor, 2004).



The risk of having LBW infant ↑ in adolescent mothers who were:

- 2nd births
 - Smoked
 - Inadequate weight gain
 - Inter pregnancy interval < 18 months
 - Black
 - <16 yrs old
- (Partington, et al., 2009)





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● Psychological and Social Effects

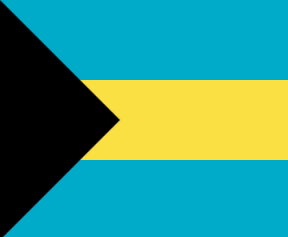
● Teenage childbearing has a negative impact on educational attainment of the mother as well as their children (Hofferth & Reid, 2002).

● The social-ecological predictors of repeat pregnancy :

- not using long-term contraceptives
- not being in relationship with the father of the first child
- being more than three years younger than the first child's father
- experiencing intimate partner violence
- not being in school postpartum
- having many friends who were adolescent parents

(Raneri & Wiemann, 2007).





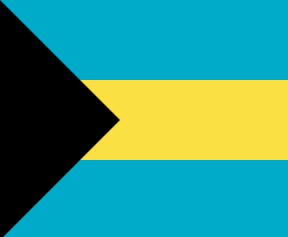
● Significance of Repeated Pregnancy

- More than 4 in 10 adolescent girls have been pregnant at least once before 20 years of age in the US (Klein, 2005).
- 25% of the teenagers giving birth will bear another child within 2 years (Schelar, Franzetta & Manlove, 2007).
- Adolescent pregnancy affects minority groups 2-3 times more than their White counter-parts.



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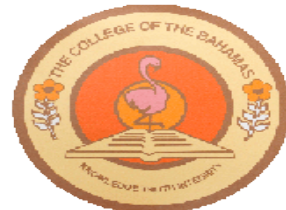


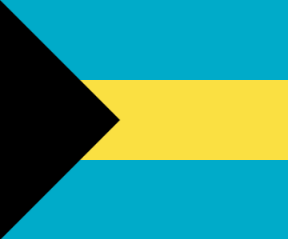
Pregnancy Prevention Programs

- Programs offering a comprehensive approach were successful in reducing sexual risk taking behaviors (Franklin & Corcoran, 2000) .
- The focus of prevention of secondary pregnancies has been providing support services for pregnant and parenting adolescents (Franklin & Corcoran, 2000).
- A decrease in repeat teen births occur during the intervention period with a rebound after it was discontinued (Key, O'Rourke, Judy & McKinnon, 2005) .



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● Religiosity in Adolescents

● Religion and spirituality are considered protective factors against negative health outcomes in adolescents (Cotton, Zebracki, Rosenthal, Tsevat, & Drotar, 2006; Holder, et al, 2000; & Regnerus, Smith & Fritsch, 2003).

● Younger age and higher spirituality are associated with a lower likelihood of voluntary sexual activity (Holder and colleagues, 2000).

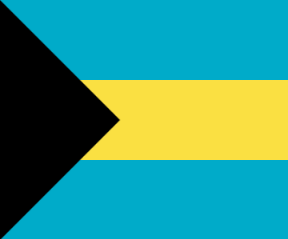
● Both public and private religiosity were protective against lower probability of ever having sexual intercourse

(Nonnemaker, McNeely & Blum, 2003).



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● Health Empowerment in Adolescents

- Health Empowerment is a process influenced by external social forces and developmental person-environmental processes, associated with self-esteem, self-worth, inner-confidence, and facilitated by relational factors such as encouragement and mentoring (Nyatanga & Dann, 2002).



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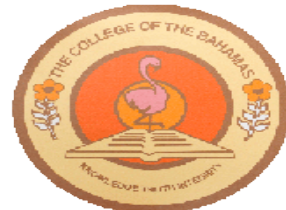


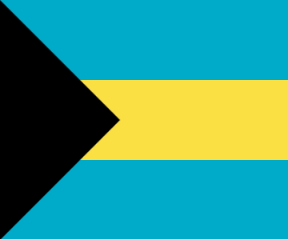
Gaps in the Literature

- What are the psychological effects of events leading up to the initial pregnancy and the sequence of events after that would put the adolescent at risk for repeated pregnancy?
- No studies have been identified to determine what characteristics in the adolescents were being met in the interventions.
- Researchers have not addressed empowerment of female adolescents to delay adolescent births and subsequent births
- There are no published studies addressing adolescent pregnancy or the level of empowerment of adolescents in The Bahamas.



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● Importance of Levels of Health Empowerment

- To facilitate interventions that are designed to empower these young mothers to participate in health-promoting lifestyles and decisions that will lead to optimal well-being for themselves & their families (Shearer, 004) ●



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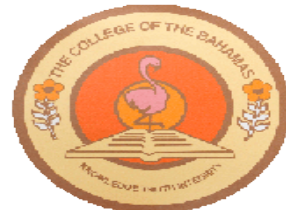


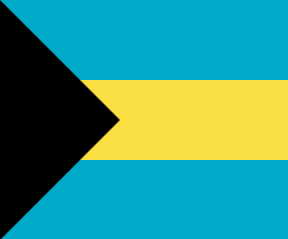
Shearer's Health Empowerment Theory (2007)

- A middle range theory, derived from Roger's principle of integrality (1980).
- The 4 assumptions are: Health Empowerment is –
 - not external to the individual and cannot be given or forced upon a person
 - a mutual relationship between the individual and the environment
 - a continuous process & not a static outcome and facilitated by nursing knowledge and evidence-based practice.
 - empowered patients participate in health care and manifest patterns of well-being.



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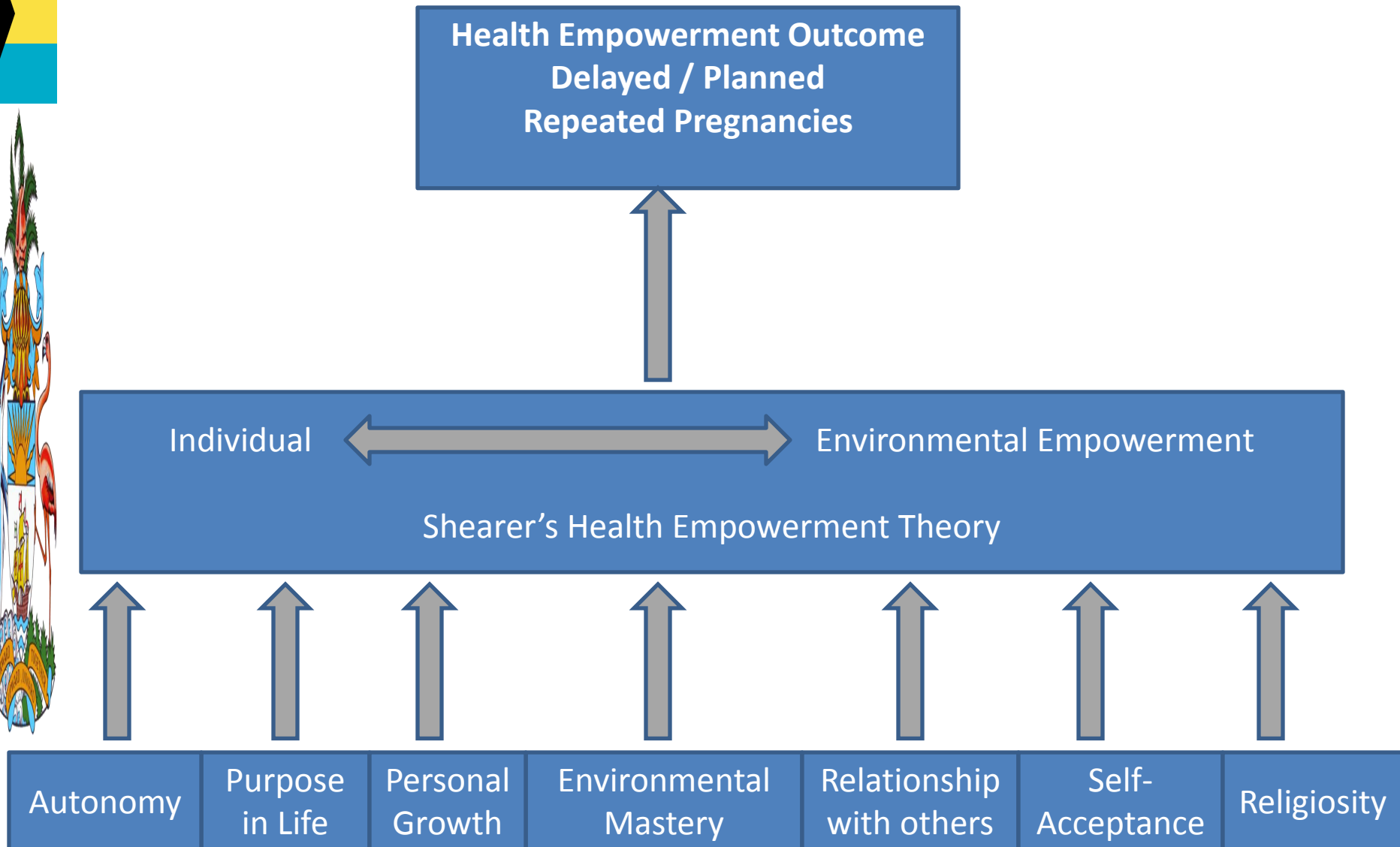


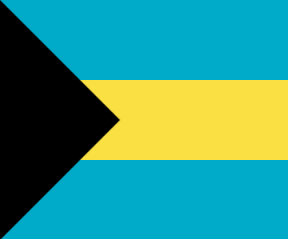
Application of Health Empowerment Theory

- Shearer used the theory to examine the elderly, a population vulnerable to issues of empowerment.
- In this study, the theory will be used to examine the contextual characteristics of pregnant adolescents who are also vulnerable to issues of empowerment
- Will be used to identify the presence or absence of personal resources for Health Empowerment
 - Psychological Well Being Scales (Ryff,1989)
 - Santa Clara Strength of Religious Faith Questionnaire (2002).



Health Empowerment Construct



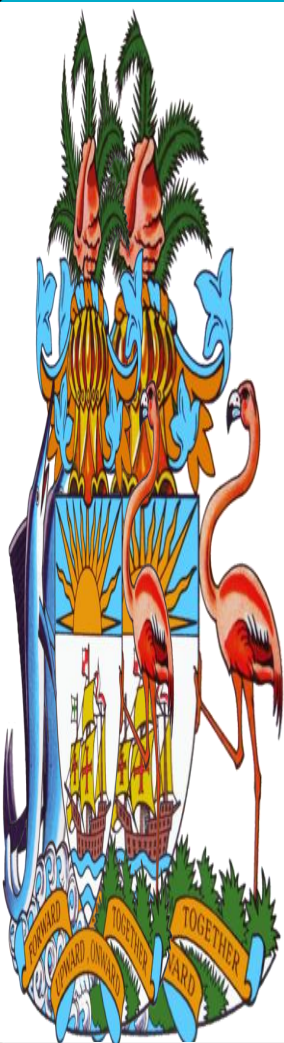


Research Objective:

To examine and describe the relationships between adolescent pregnancy and levels of health empowerment in 18 and 19 year old pregnant adolescents in The Bahamas.

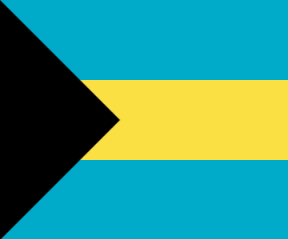
Research Questions:

1. What is the relationship among levels of autonomy, environmental mastery, personal growth, relationship with others, purpose in life, self acceptance, and religiosity and the number of pregnancies of adolescents in The Bahamas?
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Method

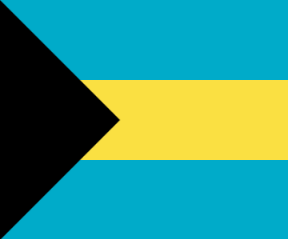
● Study Design:

- A cross-sectional, descriptive, correlational design



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Method

● Sampling Procedure:

- Convenience/snowball sample
- Pregnant Bahamian females
- 18 – 19 yrs.
- Lived in the Bahamas for the last 10 yrs.
(Erikson, 1968; Phinney, 1992; Sabatier, 2008).
- Registered @ ANC in the Bahamas
 - Nassau & Grand Bahama
- Recruited by flyers
- Approached in the registration areas of the clinics
- Read and understand English



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**PURPOSE
IN LIFE**

EMPOWERED



**Personal
GROWTH**

Are You Pregnant? 18 or 19 Years Old?

**Lived in The Bahamas
For at least 10 years?**

Attending Antenatal Clinic?

**Interested In Filling Out
a 20 Minute Questionnaire
On “Health Empowerment”
In young mothers?**

**INFORM THE RECEPTIONIST
& GET MORE INFORMATION**

RELIGIOSITY

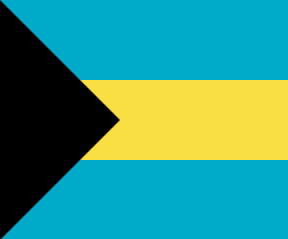
AUTONOMY

**ENVIRONMENTAL
MASTERY**

**RELATIONSHIP
WITH OTHERS**

**SELF
ACCEPTANCE**





Method

● **Sample Size**_(Cohen, 1988):

● Moderate effect size 0.15

To determine the size of the relationship between variables

● Power level of .08

The probability that the test will reject a false null hypothesis (20% Tolerance of type II error)

● level of significance $\sigma = .05$

5% chance of type I error.

● G* software calculator = 103 participants

(Buchner, Erdfelder, & Faul, 1997)



Instruments

	Scale	Reliability	This study
Demographics	- Age & Date of birth - Marital status - Educational attainment - Occupational status - Religious affiliation - Obstetric history	N/A	N/A
Ryff's Scales of Psychological Well-Being (1989)	54 items - 6 scales (9 items per scale) - Autonomy - Self- acceptance - Personal growth - Environmental mastery - Relationship with Others - Purpose in life 6 point Likert scale	Internal consistency coefficient .61 - .83 (Carr, 2005; Dierendonck, 2005; Pudrovsk, 2009; & Taylor, 2009).	$\sigma = .92$ Internal consistency coefficient .77- .89
Santa Clara Strength of Religious Faith Questionnaire (2002)	5 items 4 point Likert Scale - Score 5 – 20 points	Internal consistency $r = .68$ to .91	$\sigma = .76$



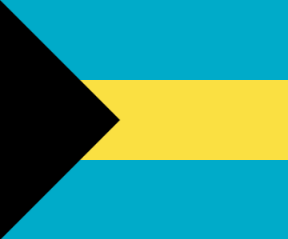
Data collection & analysis

- Flyers were posted in the clinic
- Clients were be approached as they register for the clinic
- Volunteers told the purpose of the study
- Asked to sign the consent
- Participants completed the survey
- Survey checked for completeness
- Gift of appreciation



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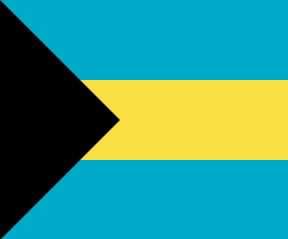
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● Protection of Human Subjects

- Permission from the Ethics Committee of the Ministry of Health The Bahamas & IRB University of Miami
- Questionnaires were coded with no identifying information
- Consent forms & questionnaires stored separately
- Data were entered in a password protected computer & backed up on a password protected UBS drive
- Data will be destroyed 5 yrs after completion of the study





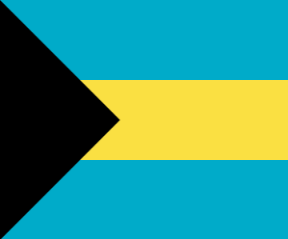
● Missing Data

- Browse questionnaire for completeness before participant leaves
- Mean & mode substitution on missing data in the PWB & SCSRFQ scales
- Discard surveys with $> 30\%$ missing data



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Results - Demographics



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Age	42.9% = 18yrs	57.1% = 19yrs	
Birth place	95.2% - Bah	3.8% - Haiti	1% - Jamaica
Marital Status	63.8% - single	34% - partnered	
Educational Status	74.3% - HS	13.3% - some college	6.7% - some HS 4.8% < HS
Educational Achievement	76% - not current	22.9% - current	
BJC	0 = 16.2% 1-3 = 27.6%	4-6 = 44.8%	7-9 = 9.6%
BGCSE	0 = 36.2% 1-2 = 13.9%	3-4 = 23.8%	5-7 = 24.8%
Employment	74.3% - unemployed	24.8% employed	
Religious	86.7% -yes	12.4% - no response	1.9% - none

Results-Demographics Continued



Advice	76.5% = mother	42.9%= other family	11.8% friends
Pregnancy	81% (86)= 1 st pregnancy	18.1% (19) = 2 nd pregnancy	
Outcome	52.6% = Term	5.3% = pre-term	21% - abortions 21% -miscarriages
Delivery Type	89.5% = vaginal	10.5% = LSCS	
Time of delivery	23.5% = 1yr	17.6% = 2yrs	29.3% = 3yrs
	11.8% = 4yrs	11.8% = 5yrs	5.9% = 7yrs
Family Planning	41.9% = none 1% =other	27.9% = Condoms 14.3% = injections	15.2% =OCP
H/O Depression	85.7% - no	12.4% - yes	1.9% - no response

Results –Empowerment Levels (SPWB)



Subscale	Low Level n (%)	Some level n (%)	High Level n (%)	M	SD
Autonomy	-	21(20%)	84(84%)	42.7	7.2
Environmental Mastery	-	32(30.5%)	73(69.5%)	40.3	7.9
Personal Growth	-	24(22.9%)	81(77.1%)	41.9	7.3
Positive Relationship With Others	-	34(32.4%)	71(67.6%)	41.3	8.1
Purpose in Live	-	19(18.1%)	86(81.9%)	44.8	7.4
Self-Acceptance	1(1%)	25(23.8%)	79(75.2%)	41.3	8.5
Overall Psychological Wellbeing	-	37(35.2%)	68(64.2%)	252.2	37.1

Low=1-18, some= 19-39, high= 37-54

Results – Religiosity (SCSRFQ)

	Very Low Faith	Low Faith <i>n</i> (%)	Some Faith <i>n</i> (%)	High Faith <i>n</i> (%)	<i>M</i>	<i>SD</i>
Religiosity	-	2 (1.9%)	43 (41%)	59 (56.2%)	15.7	2.76

Very low= 1-5, low= 6-10, Some= 11-15, High= 16-20



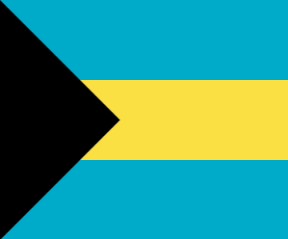
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Empowerment Theory & Adolescent
Pregnancy



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Correlations between Empowerment, Religious Faith and Dimensions of SPWB



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	Empowerment	Religiosity
Autonomy	.81**	.16
Environmental Mastery	.83**	.29**
Personal Growth	.72**	.09
Positive Relations With Others	.78**	.39**
Purpose in Life	.81**	.31**
Self Acceptance	.85**	.47**

** $P < .01$

Empowerment Theory & Adolescent
Pregnancy



Multiple Regression Model

● Number of Pregnancies

$$R^2 = .929, F(4,100) = 328.8, p < .001$$

Model	<i>b</i>	<i>SE</i>	β	<i>t</i>	Sig.
Constant	1.050	.063		16.798	.000
Pregnancy Outcome	.081	.018	.260	4.553	.000
Delivery Type	.625	.049	.023	12.732	.000
Personal Growth	-.001	.001	-.016	-.602	.549
Current Enrollment	-.002	.023	-.002	-.082	.935



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Multiple Regression Model

Health Empowerment Levels

$$R^2 = .404, F(5,95) = 12.86, p < .001$$

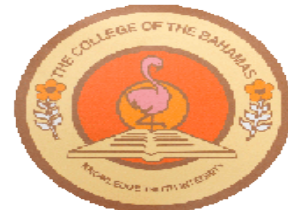
Model	<i>b</i>	SE	β	<i>t</i>	Sig.
Constant	132.629	21.987		6.057	.000
Religiosity	3.898	1.093	.292	3.567	.001
Depression	-9.806	9.521	-.088	-1.030	.306
Earned Education	14.335	4.638	.270	3.091	.003
BJC	2.980	1.774	.177	1.680	.096
BGCSE	3.086	1.681	.192	1.836	.069



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Pregnancy



Discussion

Number of Pregnancies & Dimensions of Psychological Well-Being

- Personal growth was statistically significant and negatively associated with number of pregnancies But direction of the relationship could not be established.



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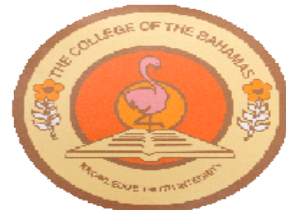
Discussion

Number of pregnancies & Overall Empowerment

- Overall health empowerment was negatively associated with number of pregnancy but not statistically significant



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Discussion

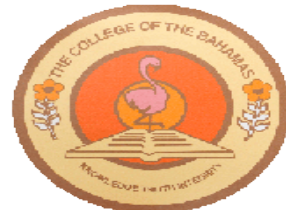
- Number of pregnancies was positively and significantly associated with the type of delivery.
- Undesired birth outcome produced more pregnancies.

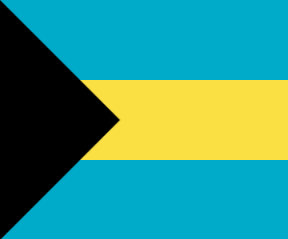


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Discussion

● Level of Health Empowerment was significantly and positively associated with:

- Higher levels of religiosity
- Higher levels of education



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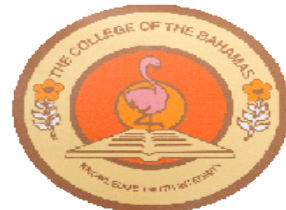


Implications for Nursing

- **Education:** Psychological & physical needs of the pregnant adolescent are important at all levels of nursing education
- **Research:** Future research with a larger sample size.
 - Repeated with other cultures
 - Repeated with younger adolescents



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Implications for Nursing

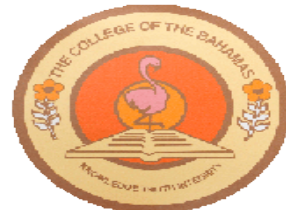
- **Practice:** Holistic, multidisciplinary approach to management of pregnant adolescents
- **Social Policy:** The importance of continuing education, during & after the pregnancy

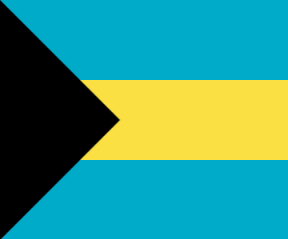


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Empowerment Theory & Adolescent
Pregnancy





Study Limitations

- Small number of participants with multiple births
- Self-reported data
- Cross-sectional design
- Limited to 18 & 19 year olds
- Bahamian Population



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Empowerment Theory & Adolescent
Pregnancy



THANK YOU FOR LISTENING QUESTIONS?

M. CHRISTINE SCHWARTZ
CENTER FOR NURSING & HEALTH STUDIES



Empowerment Theory & Adolescent Pregnancy

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THANK YOU

