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## Purpose and Questions

To examine the predictive value of autonomy, competence, relatedness, perceived competence, health care climate, attitude toward weight gain, and BMI on motivation towards healthy dietary and exercise behaviors in pregnancy.

Q1. Do basic psychological needs (autonomy, competence, and relatedness), perceived competence and attitudes toward weight gain influence overweight and obese women's motivation toward healthy dietary and exercise behaviors during pregnancy?

Q2. Based on stratification of the women into the categories of overweight and obese in accordance with BMI, will there be significant differences in patterns of responses for basic psychological needs, attitudes towards weight gain and exercise in pregnancy, and motivation towards healthy dietary and exercise behaviors during pregnancy?

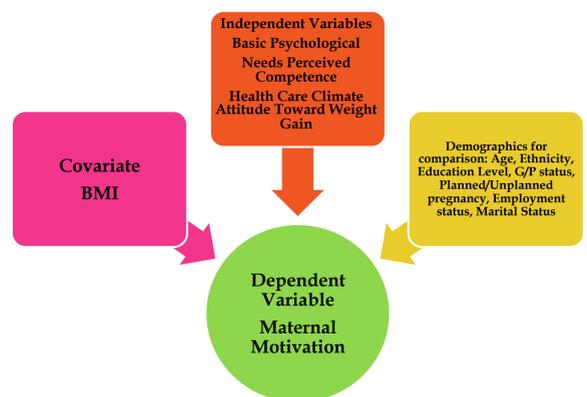
Q3. What do overweight and obese pregnant women identify as influencing motivation toward healthy diet and exercise behavior?

## Background

- Research indicates a 38% increase in overweight and obese pregnancies since 2011.
- Increased risk for maternal and neonatal complications including, stillbirth, preeclampsia, gestational diabetes, preterm labor, macrosomia, and shoulder dystocia.
- Multiple studies addressing behavioral changes related to diet and exercise indicate motivation is a key factor, however research examining motivation in overweight and obese pregnant women is limited.
- Furthermore, research examining the basic psychological needs of autonomy, relatedness, and competence, attitudes toward weight gain in pregnancy, and the health care climates' influence on motivation remains limited.

## Methodology

Mixed methods: an embedded triangulation design with a convergence model.



- Consent
- Demographic data sheet
- Treatment Self-Regulation Questionnaire
- Perceived Competence Scale
- Basic Psychological Needs Scale
- Healthcare Climate Questionnaire
- Attitude Toward Weight Gain in Pregnancy
- Semi-structured Interviews

## Theoretical Framework



The Self-Determination Theory conceptualizes motivation on a continuum from autonomous to controlled. The theory proposes that motivation is related to three basic psychological needs - autonomy, competence, and relatedness, in addition to personal values and social influences.

## Descriptive Results

Overweight and obese women <= 16 weeks gestation with singleton pregnancies (n=80)

- 34% were overweight and 66% were obese
- 45% primiparous and 55% multiparous
- 35% white, 55% A.A., and 10% other
- 52% were married, 49% had a college degree
- 78% were employed, 62% had a planned pregnancy

Interview Sub-Sample (n=16)

- 19% were overweight and 81% were obese
- 56% primiparous and 44% multiparous
- 44% white, 44% A.A., and 12% other
- 56% were married, 56% had a college degree
- 93% were employed, 69% had a planned pregnancy

## Qualitative Results

Thematic analysis (n=16)

### Autonomy

**Self-Motivation Choices**

"I think motivation it taps into something that either you have a passion for or you have a strong desire to make to meet a goal."

### Competence

**Time Knowledge Energy**

"So it's like it's difficult when you are when you want to eat healthy, but you have no idea what that really means and you have to kind of figure it out for yourself...right?"

### Relatedness

**Support Baby**

"...so for me a motivating factor is that I have this life inside of me that I'm responsible for taking care of as all of my choices impact what happened to that life-form so that's good motivation for me."

### Healthcare Climate

**Listening Resources**

"She didn't just say okay you need to lose weight and you need to eat better, which pretty much everyone knows what they have to do, but she gave me resources and she gave me options of how I could best do it for myself."

### Attitude

**Weight Labor & Delivery**

"I saw the scale creeping up. So that's automatic motivation. Okay, because I don't want to gain a ton of weight this pregnancy and that was my first goal coming out of my mouth because I found out I was pregnant."

## Quantitative Results

Bivariate analysis examined significance, directionality, and magnitude between variables and the strongest predictors were chosen for multiple linear regression using SPSS version 26.

Multiple Linear Regression Analysis Examining Autonomous Motivation Scores (N=80)

Variable	B	SE	β	p
<b>DIET</b>				
Perceived Competence	0.383	0.105	0.392	0.000
Autonomy	0.432	0.200	0.255	0.033
Competence	-.171	0.181	0.181	0.348
Attitude Toward Weight Gain	0.456	0.244	0.244	0.065

Model: Diet (R<sup>2</sup> = .280, F(4, 75) = 7.29, p = .000)

Variable	B	SE	β	p
<b>EXERCISE</b>				
Perceived Competence	0.286	0.103	0.305	0.007
Autonomy	0.588	0.203	0.338	0.005
Competence	-.084	0.177	-.057	0.638
Attitude Toward Weight Gain	0.444	0.249	0.184	0.078

Model: Exercise (R<sup>2</sup> = .305, F(5, 74) = 6.50, p = .000)

No significant correlation was found between BMI and motivation, autonomy, competence, relatedness, perceived competence, and attitudes toward weight gain.

## Conclusion

- Results indicate motivation in overweight and obese pregnant women is influenced by basic psychological needs, perceived competence and attitude toward weight gain in pregnancy.
- Maternal Body Mass Index does not seem to impact motivation toward healthy dietary and exercise behavior.
- Women report several key factors positively influence their motivation including, the health of the baby, having support, choices, and resources. Furthermore, not having time, energy, or providers who listen can negatively impact their motivation.
- Further research needs to focus on why there is a discrepancy between motivation for healthy behavior and sustaining healthy behaviors and weight during pregnancy.

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