

Is Women's Work a Pathway to their Agency in Rural Egypt?

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Defining Empowerment & Agency

- Women's **empowerment** refers to the acquisition of enabling resources (Kabeer 1999)
- Resources may enhance **agency**, or the capacity to define and act upon goals (Kabeer 1999)

Conceptualizing Egyptian Women's Agency

- Egyptian women value the ability to **control family economic resources** (Hoodfar 1997).
- Women view their **ability to leave the home unaccompanied** as helping them pursue their needs (Drolet 2011).
- Fostering **ideas of gender equality** in their children enables women to achieve their goals indirectly (Henry 2011).

Conceptualizing Egyptian Women's Agency

- We conceptualize and operationalize women's **agency** in terms of three underlying domains (VanderEnde et al nd.):
 - Influence in family economic decisions
 - Freedom of movement
 - Attitudes favoring more equitable gender roles

Relationship between Women's Agency & Work

- The benefits of women's **market work** are widely recognized
- Women's **subsistence work** is understudied
- Research question: **Do rural Egyptian women who engage in market work have higher agency compared to those who engage in subsistence work and those who do not work?**

Women's Work & Agency: Quantitative Evidence from Egypt

Decision-making

- Women who work (Kishor 1995) and those who have ever worked (Yount 2005) have greater reported influence in family decisions.
- Govindasamy and Malhotra (1996) and Salem (2011) report mixed findings or no relationship between women's work and agency.

Women's Work & Agency: Quantitative Evidence from Egypt

Freedom of movement

- Women who work have greater freedom of movement, irrespective of whether they earn cash or control their own earnings (Kishor 1995).

Women's Work & Agency: Quantitative Evidence from Egypt

Egalitarian gender attitudes

- Such attitudes are most common among women who perform cash work, followed by women who do not work at all, followed by women who perform non-cash work (Kishor 1995).

Survey and Sample

- Survey fielded in 2012 as a follow-up to the 2005 DHS
- Rural Minya governorate
- Sample size of 608 women
- Respondents were ever-married, aged 22-65

Key Variables

- **Independent variables** (based on an activities list)
 - Any market (paid) work in the past 12 months
 - Subsistence (unpaid) work only in the past 12 months
 - No work in the past 12 months
- **Dependent variables** (based on EFA involving 19 items)
 - Decision-making
 - Freedom of movement
 - Equitable gender attitudes

Analysis

- **Descriptive analysis**
- **Structural Equation Models (SEM)**
 - Estimated mean differences in the 3 agency factors across the 3 work groups
 - Assessed measurement invariance of the 19 indicators of the 3 agency factors across the 3 work groups
- **Multiple Propensity Score Models**
 - Reduced biases resulting from the lack of random assignment of women to the 3 work groups
 - Following Spreeuwenberg et al (2010), implemented in 7 steps

Results: Descriptive Analysis

Table 1. Means and Percentage Distributions of the Predictor Variables By Treatment (Work) Group

Variable	No Work	Subsistence	Any Market	All Respondents
	(N=214)	Work Only (N=279)	Work (N=107)	
Current Age (mean)	38.37	38.66	39.01	38.54
Religion				
Muslim (%)	87.32	82.73	87.74	85.17
Christian (%)	12.68	17.27	12.26	14.83
Any Secondary Schooling (%)	12.15	16.25	31.13	17.42
Worked in the Year Before Marriage (%)	56.34	76.26	67.92	67.67
First Married Under Age 18 (%)	63.55	58.78	47.66	58.50
Mother Had Any Schooling (%)	3.74	3.94	1.87	3.50
Father Had Any Schooling (%)	7.94	10.79	14.02	10.35
Household Wealth				
Poorest Quartile (%)	69.63	69.89	59.81	68.00
Second Quartile (%)	20.09	22.58	18.69	21.00
Third and Wealthiest Quartiles (%)	10.28	7.53	21.50	10.00

Results: Structural Equation Models

Step One: *Predicting Agency and Checking Measurement Invariance*

Table 2. ESEM Estimated Factor Mean Differences in Three Domains of Agency Across the Three Treatment (Work) Groups, Corrected for Measurement Invariance

Variable	Decision-Making	Freedom of Movement	Gender Attitudes
	γ	γ	γ
No Work (reference)	-	-	-
Subsistence Work Only	0.110	0.355**	-0.140
Any Market Work	-0.029	0.970***	0.037

Notes: * $p < .05$. ** $p < .01$. *** $p < .001$. γ indicates ESEM path coefficient.

Results: Structural Equation Models

Step Two: *Assessing Initial Comparability of the 3 Work Groups*

Table 3. ESEM Estimated Differences Between the Treatment (Work) Groups (Initial Comparability of Work Groups on Covariates)

Variable	Subsistence Work Only	Any Market Work
	γ	γ
Current Age	0.447	0.932
Religion	-	-
Christian (reference)	-	-
Muslim	0.504***	0.277
Any Secondary Schooling	0.215	0.633***
Worked in the Year Before Marriage	-0.268	0.009
First Married Under Age 18	-0.075	-0.305
Mother Had Any Schooling	0.114	-0.255
Father Had Any Schooling	0.240	.341*
Household Wealth	-	-
Poorest Quartile (reference)	-	-
Second Quartile	0.020	-0.136
Third and Wealthiest Quartiles	-0.153	.476**

Notes: * $p < .05$. ** $p < .01$. *** $p < .001$. γ indicates ESEM path coefficient.

Results: Multiple Propensity Score Models

Step Three: *Selecting Variables for the Multiple Propensity Score*

- Selection criterion 1 – Variable must precede temporally women's work in the prior year.
- Selection criterion 2 – Variable must be hypothesized to be associated with women's work and to women's agency

Results: Multiple Propensity Score Models

Step Three: *Selecting Variables for the Multiple Propensity Score*

Table 4. ESEM Estimated Bivariate Associations Between the Latent Agency Outcomes and Covariates

Model Variable	Decision-Making	Freedom of Movement	Gender Attitudes
	γ	γ	γ
1 Current Age	0.012*	-0.005	-0.003
2 Religion	-	-	-
Christian (reference)	-	-	-
Muslim	-0.449***	-0.435***	-0.608***
3 Any Secondary Schooling	0.037	0.275	0.645***
4 Worked in the Year Before Marriage	-0.035	0.258	-0.035
5 First Married Under Age 18	0.177†	-0.096	-0.049
6 Mother Had Any Schooling	0.094	0.521**	0.656*
7 Father Had Any Schooling	-0.109	0.326*	0.425**
8 Household Wealth	-	-	-
Poorest Quartile (reference)	-	-	-
Second Quartile	0.006	-0.079	0.442**
Third and Wealthiest Quartiles	-0.201	-0.104	0.601***

Notes: † $p < .1$. * $p < .05$. ** $p < .01$. *** $p < .001$. γ indicates ESEM path coefficient.

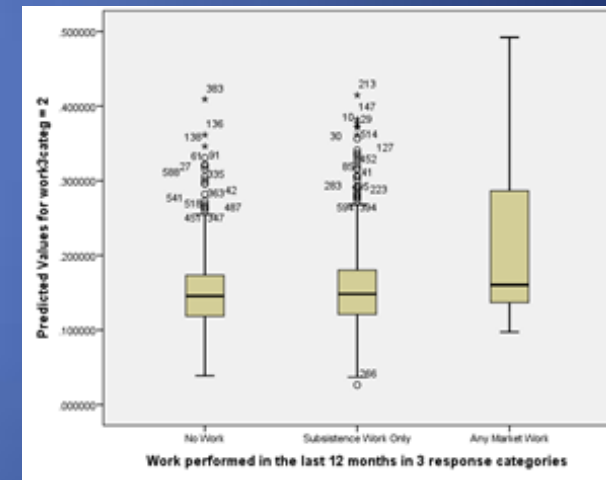
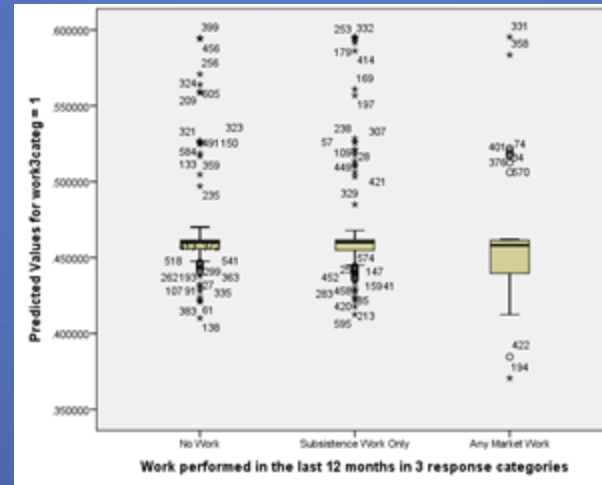
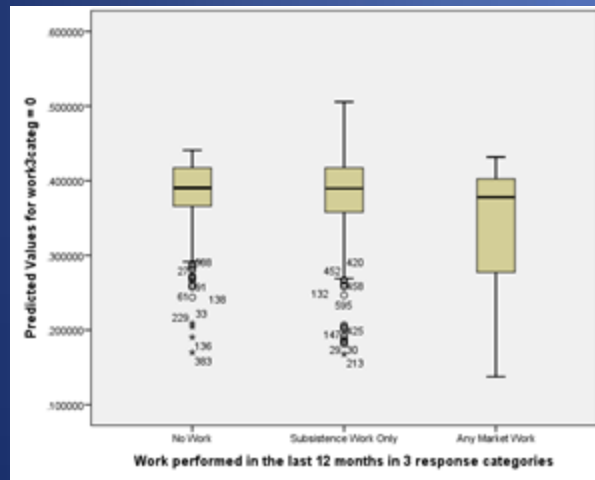
Results: Multiple Propensity Score Models

Step Four: *Multiple Propensity Score Estimation*

- Work before marriage was excluded, and the remaining 7 covariates were used as predictors of work.
- Multinomial regressions were used to compute predicted probabilities of assignment to each work group.
- Tests for the Independence of Irrelevant Alternatives Assumption suggested that the assumption was tenable.

Results: Multiple Propensity Score Models

Step Five: *Checking for Overlap of the Propensity Score Distributions*



Results: Multiple Propensity Score Models

Step Six: *Checking for Balance after Correction*

- Similarity of the covariates across the 3 work groups was assessed using a significance test.
- Balance was achieved for all covariates except religion.
- Results must therefore be interpreted with caution.

Results: Multiple Propensity Score Models

Step Seven: *Effect Estimation after Correction*

Table 5. ESEM Estimated Differences in Treatment Effects Between the Three Treatment (Work) Groups After Correction on the Multiple Propensity Score

	Decision-Making		Freedom of Movement		Gender Attitudes	
	After Multiple PS	After Multiple PS	After Multiple PS	After Multiple PS	After Multiple PS	After Multiple PS
	Correction	Correction w/ Covariates	Correction	Correction w/ Covariates	Correction	Correction w/ Covariates
	γ	γ	γ	γ	γ	γ
Work Categories	-	-	-	-	-	-
No Work (reference)	-	-	-	-	-	-
Subsistence Work Only	-0.103	-0.130	0.420**	0.445***	-0.026	-0.056
Any Market Work	-0.037	-0.149	0.968***	1.050***	-0.156	0.086

Notes: * $p < .05$. ** $p < .01$. *** $p < .001$. γ indicates ESEM path coefficient.

Discussion

- The literature has overlooked differential impacts of the types of work that women perform on agency.
- Especially little is known about these associations in Middle Eastern settings.
- The present study benefits from detailed survey items on women's work and agency measured in conjunction.

Discussion

- **Decision-Making:**

- Women's influence in family decisions did not differ according to their work in the prior year.
- Our measure of decision-making is largely restricted to decisions that are reserved for women in rural Egypt.

Discussion

- **Freedom of Movement:**
 - Subsistence and market work were associated with women's increasingly higher factor means for freedom of movement.
 - The impact of market work on women's freedom of movement may be underestimated if some market workers are home-based.

Discussion

- **Equitable Gender Attitudes:**
 - We found no effects of women's work on their gender attitudes.
 - Some working women are informal or home-based workers, so they may not be exposed to equitable attitudes about gender.

Limitations of the Study

- Our small sample size precluded disaggregation of women's work into more detailed categories (e.g. formality of work).
- We did not ask about the location (home-based versus not) of women's work.

Next Steps

- We will investigate the two Differential Item Functioning items further to understand their correlates.
- We may explore multiple group analysis as an alternative method of evaluating measurement invariance.

Next Steps

- We will attempt different specifications of the propensity models and reassess balance across the work groups.
- Instead of using propensity scores as covariates, we may use another approach such as weighting.