

# Encouraging Female Graduates to Enter the Labor Force. Evidence from a Role Model Intervention in Pakistan

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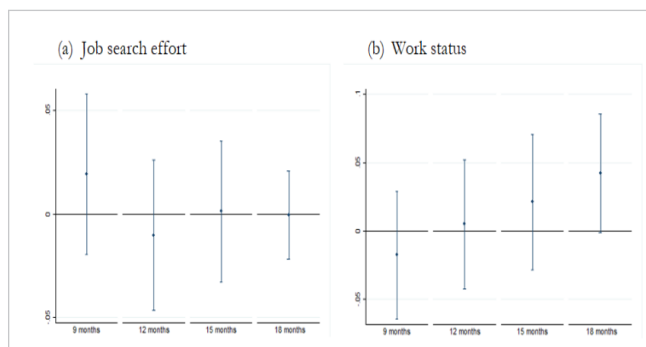


*Light-touch motivational nudge in the form of stories of female role-models are able to increase labor force participation of women from low income households.*

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## Topic at a Glance

In this study, we test if a low-cost, motivational nudge in the form of stories of female role-models can encourage female graduates from low-income households to increase labor force participation. We conducted a randomised control trial with 2500 female undergraduate students in female only public colleges in Lahore, Pakistan. We randomly selected half of the sample to watch videos of successful relatable female role models to encourage students to enter the labor force. The treated students had a significantly higher growth mindset immediately after watching the video. However, this did not translate into significantly higher job search effort or likelihood of working for the first 15 months after the intervention. Eighteen months after the intervention, at the onset of the first nationwide COVID-19 lockdown, treated students were 4.7 percentage points more likely to be working. This result was driven by respondents who belonged to households with lower income and parental education at baseline, possibly due to greater likelihood of a primary earner in their household losing job after the lockdown, and being more stressed about the loss of household income.



*Caption:* Impact of the role model intervention on job search effort and work status. Note: This figure displays treatment effect coefficients from an OLS regression run separately for each survey round. 9, 12, 15 and 18 months refer to the number of months since the baseline and intervention when the dependent variable was measured.

## New Insights

Existing work highlights external constraints and internal barriers which make it difficult for women to transition to the labour market. Transport, social norms, household dynamics, and access to job opportunities have been found to be significant barriers which keep women from being gainfully employed (Field et al., 2010; Heath and Mobarak, 2015; Field and Vyborny, 2016; Erten and Keskin, 2018; Jayachandran, 2020). Internal barriers, in the form of lack of same-gender role models, mentors and peer support are also important determinants of labor market outcomes for women (Riise et al., 2020), though they have received less attention in literature (McKelway, 2020). Role models and mentors, in particular, can reduce the 'stereotype threat' and increase participation by motivating women to their aspiration to work (Kofoed and McGovney, 2017; Breda et al., 2018; Mansour et al., 2018; Porter and Serra, 2020; Lopez-Pena, 2020).

By looking at the effect of real world role models on a yet unexplored outcome: encouraging labor force participation of young female graduates we contribute to a strand of literature that studies the impacts of aspirational stories from peer groups on adolescent behavior (Appadorai, 2004; DuBois et al., 2011; Ray, 2006), local female leadership (Macours and Vakis, 2014) and social inclusion (Doel, 2010), as well as role model effects in influencing behavior towards divorce, fertility and domestic violence (Jensen and Oster, 2009; La Ferrara et al., 2012). In doing so, we also contribute to an evolving broader group of studies that investigate the role of psychological interventions in fostering hope; improving health outcomes, academic achievement and labor market prospects; and impacting earning differences and other important life outcomes (Heckman and Rubinstein, 2001; Duckworth and Seligman, 2005; Heckman and Kautz, 2012, 2013; Kautz et al., 2014; Duckworth et al., 2019; Ashraf et al., 2020; Bhan, 2020; Resnjanskij et al., 2021). We also contribute to the literature that investigates barriers to labor force participation and tests interventions that alleviate these constraints.

Our role model intervention led to a higher growth mindset among treated students (Blackwell et al., 2007) i.e. a belief that

they can be successful in their goals through effort, hard-work and dedication. Treated students also scored higher on an 'absorption' index (Banerjee et al., 2019) i.e. they were significantly more engaged with the video, reporting that it captured their attention, touched them emotionally, and inspired them to learn more about the characters shown in the video. Given the relatively short duration of this initial interaction, we reinforced the key messages of the video three months after the intervention. Treated students remembered the names and occupations of role-models before this reinforcement at three months, and in surveys conducted eighteen months after first watching the video.

In the short run, we do not find a significant effect of the role-model intervention on job search or the likelihood of working. However, over a longer period of time (at 18 months after the intervention), women in the treatment group are 4.7 percentage points more likely to be working which is 24% higher than the placebo mean of 20.1%. We explore whether the long-run treatment effect is found in women from both low-income (LI) and high-income (HI) backgrounds. Students in the LI(HI) group report an average monthly income of 262(356) USD, 6(12) completed years of father's education and 3 (11) completed years of mother's education. We find that the average treatment effect at 18 months is driven by an effect of 11% points in LI respondents while we find no differences in the likelihood of working in the HI sub-sample. These heterogeneous effects are not surprising given the LI group is much more likely to report adverse outcomes for their primary male earner as a result of the COVID19 pandemic.

## Policy Recommendations

Our findings highlight the potential of using a low-cost light-touch intervention in increasing participation of women from the poor and vulnerable segments of society. However, the lack of average treatment effects among women from higher income households shows that improving participation in the overall population of women will require dealing with structural constraints such as safe transportation options and that without such complementary initiatives, light-touch interventions may not provide sufficient motivation for women to enter the labor force. In addition, it is possible that the light-touch nature of the intervention was insufficient encouragement for women.

## Limitations

An important limitation of our analysis is that we lost about 40% of our sample by endline due to a number of reasons namely girls had graduated, continued higher education, married or started working. However, we estimate and show Lee bounds to rule out differential attrition and ex-post MDEs to address concerns about low statistical power.

Another limitation of the study is that we did not engage families of these students at any point during the data collection. Our prelimi-

nary findings from focus group discussions revealed lack of permission from family as a significant hurdle for girls to participate in the labor force. Therefore, there is a possibility that such psychological interventions may have a greater positive impact if girls' families are also engaged. Hopefully this can bring a positive change in the parents' mindsets too and may induce greater acceptance to the idea of daughters' working where conservative norms are present. Future work in this direction must explore the possibility of engaging families in such light-touch psychological interventions.

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*G<sup>2</sup>LM|LIC is a joint program by IZA and the UK Foreign, Commonwealth & Development Office (FCDO) – improving worldwide knowledge on labor market issues in low-income countries (LICs) and providing a solid basis for capacity building and development of future labor market policies.*