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SOUTH-ASIAN FEMALE ROLE MODELS IN SPACE INDUSTRY:
FROM PROBLEM TO SOLUTION

Abstract

In the past few years, enrollment of females has increased in STEM degrees in South Asian countries but their participation in long, successful and fulfilling careers is not improving. South-Asian women face unfavorable cultural barriers, to name societal norms, pressure of marriage, trappings of domesticity or responsibilities of household, children elder care, and worrying about physical sexual harassment and several other issues including lack of role models they can relate to. These patriarchal obstacles affect their career and the expectation of Motherhood-Work-Household balance keeps them grounded. Academic and workplace policies are male-oriented due to lack of females in decision making bodies, whilst there exists a masculinity-centered approach of Math Physics. This study's proposed solution is to support teachers to engage girls in STEM/Space by providing them training before giving educational resources or funding. The South-Asian education system is not producing fully qualified teachers to shape the future of nations towards empowered women to fulfill their career endeavors. Considering teachers are the nation builders, they could be the ones who influence young girls everyday. Therefore, new development must be considered towards the development of their transition. Our research presents international solutions that are in line with continuous development of teachers towards creating strong women-centered STEM communities. To name, development of fellowships and scholarships for South Asian teachers to engage in STEM/Space at international level; creation of culturally-relevant STEM experiences for teachers girls and of strategic plans to end masculinisation of Math Physics or labeling Medicine Teaching more lady-like fields. The paper is furthermore presenting ideas implemented internationally that can steer the societal development from idea-inaction to action-based and implementation process against physical, sexual or any other type of harassment through building a women-supportive ecosystem set on flexible working patterns, onsite childcare or period leave. Women-led STEM/Space initiatives in Pakistan, India, Nepal and Bangladesh have observed that the systemic inequality and cultural attitudes have caused loss of interest in Space/STEM and shaken the confidence of young girls to aspire the same ambitions as men. These female educators have, thus, become a model figure for girls. Although all industries exhibit gender bias, STEM/Space is the final frontier which is promising to welcome women from all walks of life and empowered female-educators have enabled their communities to thrive. For this reason, girls need living role models of their generation who share their cultural background and understand the challenges.