

Effect of Women's Paid Work Status on Their Decision-Making Autonomy: A Systematic Review and Meta-Analysis

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Abstract

This systematic review analyzes the relationship between and relative effect of women's paid work status on their decision autonomy, among its other determinants. Using 22 studies with 28 different samples from low- and middle-income countries, this study shows that the overall effect of women's paid work status on their decision-making autonomy is highly significant ($p < 0.001$), and a net odds ratio between women's paid work and their decision autonomy of 1.26 (95% C.I.= 1.17-1.36). This autonomy as enjoyed by South Asian working women in contrast to their non-working counterparts (OR=1.30, 95% CI=1.16-1.45, $p < 0.001$) is slightly higher than that of non-South Asian women (OR=1.21, 95% CI=1.09-1.35, $p=0.0006$). The majority of decisions are made on health-related matters, the purchase of daily household needs, or investing large amounts of money in asset purchases. Education is the second major component of women's decision autonomy (OR= 1.24, 95% CI= 1.19-1.30, $p < 0.001$), though it is not consistent across all geographic locations. This study also shows that women's age and family wealth are important contributors to women's autonomy in some countries, whereas husbands' education and occupation do not empower married women in terms of their decision-making autonomy.

Key words

women's autonomy, decision autonomy, paid work status, developing countries

Introduction

Over the past few decades, the issue of women's empowerment and autonomy

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has rapidly gained importance in the context of gender inequality and its adverse effects on a country's economic and social progression (Muhammad, Bano, Muhammad, & Baig, 2021; Seymour & Peterman, 2017). In addition, the importance of women's participation in the labor force is continuously being emphasized by many agencies, such as the United Nations and the ILO (International Labor Organization report, 2021). Theoretically, women's increased economic participation should result in increased autonomy and empowerment (Buller, Hidrobo, Peterman, & Heise, 2016; Cornish et al., 2021; Ortiz-Rodríguez, Pillai, & Ribeiro-Ferreira, 2017), but the existing research does not reflect a consensus on the relationship between these two (Schuler & Nazneen, 2018; Zegenhagen, Ranganathan, & Buller, 2019). To date, very few studies have exclusively addressed the issue of women's labor force participation and their autonomy.

Autonomy and Its Dimensions

The idea of women's autonomy began with the concept of women's status, initially conceptualized by Mason and Smith (2000) and then explored further by other researchers. Jejeebhoy (2000) defined autonomy as women's control in various domestic spheres; Khan and Ram (2009) defined autonomy as the capacity to achieve well-being through the role of decision making; Haque, Islam, Tareque, and Mostofa (2011) defined women's autonomy as their ability to make choices or take decisions in the household relative to their husband; and Tesema et. al. (2021) described autonomy from the perspective of healthcare decision making.

This shows that the concept of autonomy is multidimensional (Bayissa, Fitsum, Smits, & Ruben, 2018; Jejeebhoy & Sathar, 2001; Kishor, 1993; Malhotra & Mather, 1997; Rammohan & Johar, 2009) and therefore difficult to quantify. Traditionally, different societies have accorded different meanings to this concept. For example, in India, women's autonomy is usually defined in the domestic sphere (Bloom, Wypij, & Gupta, 2001), while control of fertility and contraceptive use (Dyson & Moore, 1983; Jejeebhoy, 1995), freedom from domestic violence (Koenig, Ahmed, Hossain, & Mozumder, 2003), and bargaining power between couples in household expenditure (Beegle, Frankenberg, & Thomas, 2001) are also taken as dimensions of women's autonomy. In addition, the ability to decide for oneself or the ability to influence other household members' decisions are also considered important indicators of women's autonomy. In other research, the dimensions of women's autonomy have been categorized under three broad headings: economic autonomy, decision-making autonomy, and physical autonomy or

mobility (Abedin & Arunachalam, 2021; Bloom et al., 2001; Jejeebhoy, 2002).

The fact that autonomy is frequently used as a term in the psychological literature is pertinent, as is its interchangeability with the term “bargaining power” in the economic literature. According to Donald, Koolwal, Annan, Falb, and Goldstein (2017) in a World Bank Policy Research working paper, autonomy should be distinguished from independence, as people may depend on others to support their autonomy. On the other hand, bargaining power is essentially related to one’s ability to influence decisions and act according to one’s preference in the psychosocial sphere of life and in relation to tangible material matters of utility to the decision-maker. Hence, decision-making autonomy can be said to be the most important part of women’s autonomy overall.

Paid Work Status of Women in the Developing World

In the developing world, the relationship between economic growth and women’s workforce participation is not linear, but rather ‘U’ shaped (Assaad, Hendy, Lassassi, & Yassin, 2020). Some countries have experienced a decline in the rate of women’s workforce participation despite increasing income, education, and overall social development. Verick (2014) concludes that higher education (beyond secondary level) is critical in employment outcomes, along with social norms and job opportunities. The International Labor Organization (ILO) associates women’s participation in the labor market with development, education, fertility rates, and access to child healthcare. Notably, these are among the most important determinants of women’s decision-making autonomy. The ILO has observed a puzzling trend in the labor force participation pattern of women across South Asian countries. To this end, they commissioned a Decent Work Team for South Asia in 2012 to conduct further research on women’s workforce participation and its complex relationship with economic and empowerment issues.

The Complex Relationship between Labor Force Participation and Women’s Autonomy

Theoretically, paid employment should improve women’s financial and decision-making autonomy (Buller et al., 2016; Cornish et al., 2021) and empower them through self-esteem and identity to enjoy utility from their preferences (Riley, 1998). This is supported by classical economists, who mention that in any socio-economic norm, an earning woman is placed in a potentially better position

to participate in household decision-making (Dixon-Mueller, 1993; Kishor, 2000; Sen, 1987). However, many literature reviews have shown this relationship to be inconclusive. For example, the study by Dharmalingam and Morgan (1996) commented that women's work in two southern Indian villages did not give them autonomy directly, despite giving them bargaining power. In a number of South Asian studies, researchers observed that even the highest-earning female members do not have economic autonomy or economic decision autonomy over the wages they earn (Philips, 2003; Samarasinghe, 1993). Similarly, Ristiana and Handayani (2018) stated that the use of labor force participation as a proxy for women's autonomy may not be beyond criticism as in many cases, women's paid employment did not improve their autonomy. This argument is especially likely to be true in patriarchal societies like those in South Asian and African countries, (Beath, Christia, & Enikolopov, 2013).

Aim of the Present Study

In the context of this discussion, it is important to examine the relationship between women's work and their decision-making autonomy. With this purpose, we have thoroughly searched the existing literature to explore the determinants of women's decision-making autonomy where women's paid work status has been included in the scope of the study. As studies exclusively discussing these two variables are scarce, we have also extracted data from studies that have incorporated women's paid work status among many other determinants of autonomy.

The primary aim of this review is to determine 1) the relationship between women's decision-making autonomy and their paid work status, 2) the relationship of other major determinants of autonomy with women's paid work status and their importance, 3) the relative importance of the effect of paid work status on women's autonomy, in reference to other determinants, and 4) the effect size of paid work status using meta-analysis and compare it with the effect size of other major determinant(s) on women's decision-making autonomy.

As discussed earlier, the ILO has observed the "South Asian enigma" regarding women's workforce participation and empowerment in South Asian countries and recommended further research in this area. Hence, while conducting our meta-analysis, we need to explore the contrast between South Asian and non-South Asian countries in terms of the effect of women's paid work status on their autonomy. As per the ILO (International Labor Organization, 2012) and the research by Manjula (2021), such a contrast between South Asian and non-South

Asian countries exists because of the fact that, in spite of showing promising economic development, women's status in both labor force participation and intra-family autonomy are declining in South Asian countries. Hence, the secondary objective of this study is to conduct a subgroup analysis of South Asian countries to identify how paid work affects women's decision-making autonomy differently in these countries.

Materials and Methods

Sources of Information

Major Internet databases, including PubMed, JSTOR, Web of Science, IBSS, ASSIA, the Social Science Research Network (SSRN), and EconStor, were extensively searched. We also searched for relevant articles using Google Scholar, and the reference lists of identified articles were thoroughly checked for further relevant articles (Higgins et. al., 2019). The Comprehensive Pearl Growing technique was used in the initial search phase (Shojaati & Osgood, 2021) and at the end, and expert consultation was availed of to ensure that the search process was complete and concise. Using Mendeley reference management software (Simarmata, Dewi, Sila, Sele, & Shidik, 2021), all relevant studies were downloaded and duplicate references eliminated. Table 1 shows the different search techniques used in the study and the number of selected studies identified using each search technique.

Screening and Selection

Searches were carried out using the following keywords and their synonyms:

Table 1
Source of Studies Included in the Review

Search technique	No. of studies identified from respective search technique
Comprehensive Pearl Growing technique	3
Database search	16
Gray literature search	3
Citation/unstructured search	2
Analysis of reference lists	1
Expert consultation	3

“working women,” “women autonomy,” “women in labor force,” “developing countries,” “women decision,” “women employment,” and “paid work.” The process followed for the selection of the studies is presented in the PRISMA flowchart (Rethlefsen et. al., 2021), as shown in Figure 1. The total time taken to conduct this systematic literature review was approximately 14 months. The major activities involved in developing this study began with the preparation of the study protocol, which was started in April 2020 and took approximately two months. Thereafter, searching for all relevant online and offline sources, screening of the studies, and eligibility testing followed by inclusion assessment took approximately six months. After that, data sieving, data entry, and follow-up of missing information involved another two months, and analysis of data and preparation of the review report took another three months. As the study is by nature a systematic review, endeavoring to keep the review up to date by incorporating the latest relevant studies was a major challenge and caused overlapping in many of the aforementioned steps (Higgins & Green, 2011).

Initially, 326 documents were identified using various search techniques, of which 16 were removed as duplicates, and a further 243 studies as commentaries, opinions, editorial articles, discussions, review articles, or conference proceedings without full papers. The full text of the remaining 67 articles was assessed, and a further 45 were discarded, either for not having women’s decision autonomy as the outcome variable or for not incorporating women’s labor force participation as a variable in the study. The final set of 22 articles remained and were included in the qualitative synthesis. Among them, three articles had three sub-analyses of three different samples taken from different geographical locations (countries), giving a total sample size of 28 ($n=28$).

Since this systematic review measured the effect size of women’s decision autonomy, a thorough quality assessment was performed for the studies included in this review. For this purpose, the Critical Appraisal Skills Programme (CASP) checklist was used (Nematy, Namer, & Razum, 2022)—the CASP qualitative studies checklist (10 points) for qualitative studies, and the CASP cohort study checklist (12 points) for cohort studies, as both were found to be a good fit for inclusion in this systematic review. The checklists were appraised for three broad issues: (a) Validity of the results of the study (Are the results of the study valid?), (b) Appraisal of the results (What are the results?), and (c) Generalizability (will the results help locally?).

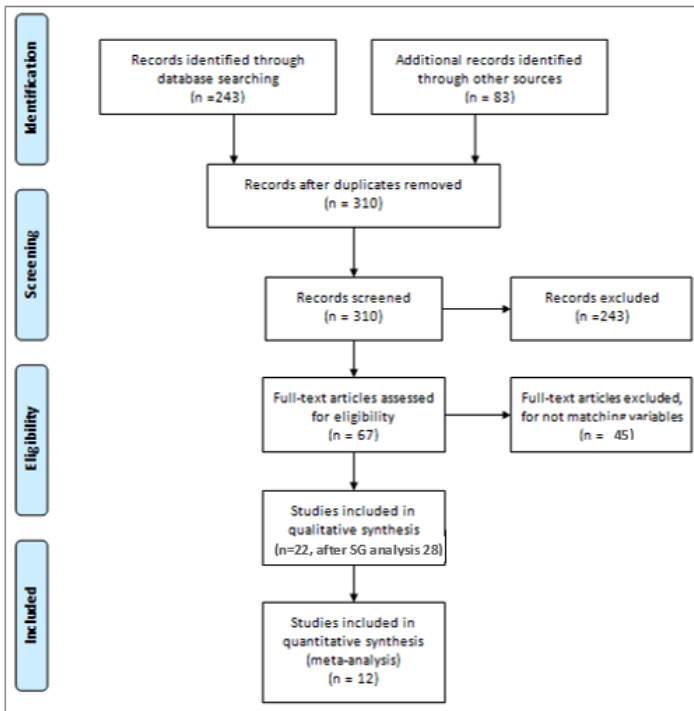


Figure 1. Flow of Search Strategy (based on PRISMA statement template).

The inclusion criteria used to select studies for this review were as follows:

1. Original articles
2. Articles based on developing or low- and middle-income countries only
3. Women's autonomy as the outcome variable, showing relationship with women's employment or paid work
4. Articles published in or after 2000
5. Studies published in English.

Meta-analysis Method

Calculation of the effect sizes.

This systematic review performed a meta-analysis of the selected studies, which presented data on at least two major variables: the decision autonomy and the paid work status of women. Since effect sizes were measured from the natural loga-

rithm of odds ratios and their standard errors, only studies containing such data could be incorporated in this meta-analysis. These data were derived from the logistic/OLS regression models. In some studies, odds ratios (ORs) with confidence intervals were recalculated to determine log odds ratios and standard errors. Two studies mentioned only log odds ratios, without mentioning standard errors. Unlike some other systematic reviews where standard error has been assumed, we did not include studies where standard error was not mentioned and could not be calculated using available data. The total effect size was calculated from the log odds ratios weighted by the inverse of their variance. For this, the regression model always estimated decision-making autonomy as the dependent variable and the paid work status of the women as independent variables. In addition, we attempted further meta-analyses with other independent variables that were frequently mentioned or were mentioned as important in the studies included in our systematic review. Sub-group analysis was performed to reduce the heterogeneity of the effects. The subgroups were chosen according to the geographical location of the sampling of the relevant studies, so the South Asian studies were taken separately as a subgroup. This is in line with our earlier discussion that, in South Asian countries, a puzzling trend is observed in the relationship between women's labor force participation and their status of autonomy.

Homogeneity.

The estimated effect sizes were tested for homogeneity using the I² estimate derived from Cochran's Q statistic. According to Cochrane's guidelines, a heterogeneity of more than 75% should be considered a very high variation in the effect sizes (Deeks, Higgins, Altman, & Cochrane Statistical Methods Group, 2022) and thus the estimates of the effect size may not be robust, though there is no universal consensus on this. However, in cases where we found high heterogeneity, subgroup analysis was performed, while the random-effects model was used for effect sizes with less homogeneity.

Depiction of the findings.

The results of the meta-analyses are shown as forest plots with effect sizes and statistics. Since we have estimated odds ratios, the indifference line is set at 1, right of which appear odds ratios more than one and left of which appear the fractional odds ratios. The homogeneity of the effects was determined using a funnel plot.

Results

Study Characteristics

A total of 22 articles were included in this review, of which three were conducted in three countries with different samples (see Table 2). For ease of analysis and explanation, each of those study was numbered separately, giving a total of 28 samples. These studies were conducted in 13 countries (see Table 4), of which three belong to the low-income group, eight to the lower-middle income group, and two to the upper-middle income group. Fifteen of the 28 are from South Asian countries. Only three of these studies used both quantitative and qualitative methods, and the remaining 25 used quantitative data only. In eight studies, primary data were collected through questionnaires, interviews, or a combination of both, and 20 studies used secondary data from national demographic and health surveys.

Dimensions of Autonomy

Most studies have discussed women's autonomy under three broad headings: decision autonomy, economic autonomy, and physical autonomy/mobility. All three dimensions were discussed in eight studies with ten samples. Apart from these three dimensions, one study introduced personal autonomy in three samples and family autonomy in two samples (Heaton, Huntsman, & Flake, 2005). One study measured women's autonomy in various dimensions of the purchase of household items (Anderson & Eswaran, 2009), which is analogous to economic autonomy. Jejeebhoy and Green (2001) added freedom from threat as a component of autonomy, whereas Vaz, Pratley, and Alkire (2016) discussed autonomy as part of psychological well-being (see Table 2).

Components of Decision Autonomy

As previously mentioned, most studies have included decision autonomy as a component of women's overall autonomy. Some studies have distinguished between "economic autonomy" and "autonomy of economic decision making" (Jejeebhoy & Green, 2001). The autonomy of economic decision making involves the purchase of daily household goods and making decisions about large purchases such as jewelry or land (Hakim, Salway, & Mumtaz, 2003; Jejeebhoy, 2002;

Kabeer, Mahmud, & Tasneem, 2018; Lamidi, 2016; Regassa & Regassa, 2016). On the other hand, economic autonomy is described as having access to and control over available economic resources, such as owning and controlling the mobility of household valuables, planning for savings, and having a bank account (Bloom et al., 2001; Jejeebhoy, 2000; Samari & Pebley, 2018; Sathar & Kazi, 2000). The possession and disbursement of dowry is clearly contradictory to women's empowerment, but studies show that it entails economic autonomy for married women (Jejeebhoy, 2000). Hence, the autonomy of economic decision making is observed to be a more empowering term than economic autonomy. Taking decisions about one's own and one's children's health has been noted as another important aspect of decision-making autonomy and is discussed in detail in several studies. Making decisions about a child's health not only raises a woman's importance within the family, but also emphasizes her intellectual ability (Alemayehu & Meskele, 2017; Bloom et al., 2001). Seven studies have cited health decision-making autonomy as a major component of women's autonomy (Alemayehu & Meskele, 2017; Hakim et al., 2003; Jose, 2008; Kamiya, 2011; Lamidi, 2016; Osamor & Grady, 2018; Senarath & Gunawardena, 2009) and some studies have developed indices of decision autonomy from different components to use as a continuous variable (Bloom et al., 2001; Sultana, 2011) (see Table 2).

Addressing Workforce Participation

Only one study has dealt exclusively with women's autonomy and work as its primary objective (Ristiana & Handayani, 2018), highlighting the paucity of discussion of women's work in the context of their autonomy. However, while exploring the factors of women's decision autonomy, 19 of the 28 studies found a statistically significant positive relationship between women's workforce participation and their autonomy in decision-making and another 4 showed an insignificant relationship (Bolivia sample of Heaton et al., 2005; Kamiya, 2011; Regassa & Regassa, 2016; Sathar & Kazi, 2000). Three studies mentioned that paid work is a significant contributor to autonomy, as opposed to unpaid work (Hakim et al., 2003; Kabeer et al., 2018; Ristiana & Handayani, 2018) and only one study stated that women's employment has a significant negative impact on women's decision-making autonomy (Samari & Pebley, 2018). Table 3 shows the detailed characteristics of the relationship between decision autonomy and the paid work status of women.

Table 2

Characteristics of the Included Studies (n=28)

Sample ID	Author	Year	Setting	Research Theme	Sub- theme	Sample Size	Data Source	Sampling	Data type	Dependent Variables	Independent Variables	Statistical Model
1	Acharya et al.	2010	Nepal	Influence of socio-demographic factors on women's decision autonomy	Linkage between women's household position and decision autonomy Effect of socio-demographic factors on health, purchase and family visit decision making Influence of age, employment, education, residence and number of children on decision autonomy	8257	Nepal Demographic Health Survey (NDHS) 2006	-	Quantitative (secondary data)	Women's decision making autonomy	Age, employment, parity, residence, wealth, education, region, ecologic zone	Bivariate analysis, multivariate logistic regression
2	Alemayehu et al.	2017	Wolaita and Dawro zones, Southern Ethiopia	Factors behind women's decision making autonomy and socio-cultural disparity in autonomy	Autonomy in women's healthcare decision making Influence of women's occupation, wealth and family size on their decision autonomy Contribution of partner's role and education level on women's decision autonomy	967	Primary data (interview)	Multistage sampling	Quantitative	Healthcare decision autonomy	Self-occupation, husband's occupation, self-education, husband education, family wealth, family size, age, birth order, number of pregnancies,	Bivariate analysis, multivariate logistic regressions

Table 2
To be Continued

Sample ID	Author	Year	Setting	Research Theme	Sub- theme	Sample Size	Data Source	Sampling	Data type	Dependent Variables	Independent Variables	Statistical Model
3	Anderson et al.	2009	Bangladesh	Factors determining women autonomy in developing countries	Role of women employment on their decision autonomy Influence of various demographic variables, seniority and family position in determining women's autonomy. Relationship between farming in family land vs. non-family land and women's decision autonomy	3720	Matlab Health and Socio Economic Survey (MHSS)	-	Quantitative (Secondary data)	Female autonomy (purchase of 7 daily household items)	Women's age and education, husband's age and education, value of woman's land, woman works in fam, woman works for income, status of whether woman is head of the family/ close kin of the head	Ordinary least square regression,
4	Bloom et al.	2001	India	Dimensions of women's autonomy and its relationship with women's maternal healthcare utilization	Identification of women's autonomy in three areas; Financial autonomy, Autonomy in decision making. Physical autonomy	300	Primary data (interview)	Probability sampling	Quantitative	Autonomy (Economic autonomy, Index of decision autonomy, physical autonomy/mobility) b. Living with mother in law, frequent contact with natal kin c. Antenatal care utilization, Safe delivery care	Working Status, Education, Economic status, Religion	Linear Regression Model

Table 2.

To be Continued

Sample ID	Author	Year	Setting	Research Theme	Sub- theme	Sample Size	Data Source	Sampling	Data type	Dependent Variables	Independent Variables	Statistical Model
5	Hakim	2003	Pakistan	Identification of women autonomy in contraception use and reproductive health care	Relationship between women autonomy, gender equality and decline in fertility. Women's physical autonomy and mother's decision making autonomy in child care Influence of demographic factors, employment status etc. in determining women autonomy	7584	Pakistan Fertility and Family Planning Survey	-	Quantitative (Secondary data)	Autonomy (Mobility and decision making about child health and purchase)	Age, Parity, Education, Occupation, Mother tongue, Residence (urban/rural), Family size	Logistic regression
6,7,8	Heaton et al.	2005	Bolivia (6) Nicaragua (7) Peru (8)	Objective indicators of women autonomy and their relationship with women's subjective experience of autonomy	Importance of socio-economic status, employment, education, household size, residence and husband's education on women's autonomy in decision making Relationship between objective autonomy indicators of women and subjective experience	Bolivia- 510 Nicaragua- 5073 Peru- 14781	Secondary data (Bolivia Family Interaction and Children's Well-Being Survey, Peru Demographic Health Survey, Nicaraguan Demographic and Health Survey)	-	Quantitative (Secondary data)	Autonomy (Personal autonomy, decision making autonomy, family autonomy)	Socio-economic status, employment, household size, age of marriage, husband's education, education, residence	Structural equation model

Table 2.
To be Continued

Sample ID or	Auth or	Year	Setting	Research Theme	Sub- theme	Sample Size	Data Source	Sampling	Data type	Dependent Variables	Independent Variables	Statistical Model
9, 10, 11	Jejee bhoj	2001	Punjab, Pakistan (9); Uttar Pradesh, India (10); Tamil-nadu, India (11)	Dimensional differences in women's autonomy across three countries	Identification of the underlying contextual factors of women autonomy Dimensional differences in respect of religion, nationality, or north-south cultural distinctions. Autonomy in the context of Economic autonomy, Economic decision autonomy, physical autonomy	Punjab= 1036 Uttar Pradesh= 859 Tamil Nadu= 983	Primary (Structured Questionnaire)	simple random sampling	Quantitative	Autonomy (Economic autonomy, Economic decision autonomy, physical autonomy/ mobility, Freedom from threat)	Educational Attainment, Marital Age, Decision autonomy in marriage, Dowry amount, Natal kinship, Residence at in-laws, Age difference between spouse, Wage work, parity	Descriptive analysis, OLS Regression
12	Jose	2008	India	Paid employment in elevating women's autonomy in India	Different dimensions of paid employment and its role in determining women autonomy Poverty induced paid employment and women's autonomy Change in women's household autonomy with different forms of paid employment	93089	National Family Health Survey-3 (NFHS-3)	-	Quantitative (secondary data)	Employment status (unemployed, paid employment, unpaid employment)	Women's participation and control in decision making (daily/ major household purchase autonomy, self-healthcare autonomy, physical autonomy/ mobility)	Descriptive statistics

Table 2.

To be Continued

Sample ID	Author	Year	Setting	Research Theme	Sub- theme	Sample Size	Data Source	Sampling	Data type	Dependent Variables	Independent Variables	Statistical Model
13	Kabeer et al.	2018	Bangladesh	Feminization of paid work in the context of economic liberalization and its relation with women empowerment	Differences in cultural meaning and social acceptability in different kinds of women's paid work. Measuring women empowerment in terms of purchase autonomy, health expenditure autonomy, income control autonomy. Different types of work and employment status and its relationship with autonomy	5100	Primary (semi structured questionnaire, interview)	Clustered random sampling	Quantitative & qualitative	9 measurements of empowerment which includes 4 measures of decision autonomy (health, small purchase, large purchase, income	Age, marital status, religion, status as whether head of the family, education, formal wage work, informal wage work, self-employment, unpaid work, household assets, wealth, personal assets, region	Logistic regression model
14	Kamiya	2011	Tajikistan	Role of women's autonomy in improving maternal health in developing countries	Effect of women's household autonomy on their reproductive healthcare. Role of major demographic and economic factors in determining women's household decision autonomy	5117	Tajikistan Living Standard Measurement Survey 2007	-	Quantitative (secondary data)	Healthcare decision autonomy, Reproductive Health care utilization (antenatal care, skilled birth attendance, facility delivery)	Ethnicity, education, working status, number of children, household expenditure per capita,	Bivariate probit model
15	Lamidi	2016	Nigeria	Variation in women's decision making across different States of Nigeria	State variation in the decision making power of women depending on women's employment status, education and religion. Determining effect of household wealth, number of children, age, gap, ethnicity, polygyny, residence on women's decision autonomy in Nigeria	26306	Nigeria Demographic and Health Survey, 2013 (NDHS)	-	Quantitative (secondary data)	Women's decision-making power/expenditure autonomy, self-healthcare related autonomy, household purchase autonomy, physical autonomy/ mobility)	Education, wealth, employment, residence, religion, number of children, age, age gap, ethnicity, polygyny, state variables	Multilevel linear regression model

Table 2.

To be Continued

Sample ID	Author	Year	Setting	Research Theme	Sub- theme	Sample Size	Data Source	Sampling	Data type	Dependent Variables	Independent Variables	Statistical Model
15	Lamidi	2016	Nigeria	Variation in women's decision making autonomy across different States of Nigeria	State variation in the decision making power of women depending on women's employment status, education and religion. Determining effect of household wealth, number of children, age, age gap, ethnicity, polygyny, residence on women's decision autonomy in Nigeria	26306	Nigeria Demographic and Health Survey, 2013 (NDHS)	-	Quantitative (secondary data)	Women's decision-making power(expenditure autonomy, self-healthcare related autonomy, household 12purchase autonomy, physical autonomy/ mobility)	Education, wealth, employment, residence, religion, number of children, age, age gap, ethnicity, polygyny, state variables	Multilevel linear regression model
16	Mishra	2011	India	Change in the degree of women's autonomy and empowerment based on certain determinants	Identification of the various sources of women empowerment and indicators of autonomy at both individual and State level. Conceptualization of women's empowerment agency and autonomy	Not mentioned	NHHS 3 data	-	Quantitative	Decision Autonomy, Mobility, Consent in sex, Women Justifying wife beating, Marital control	Region, Location (urban/rural), Religion, Caste, Job, Education, Wealth	No statistical tests done
17	Nigatu et al.	2014	Bale Zone, Ethiopia	Influence of women's autonomy in maternal and child healthcare	Assessment of the level of women's autonomy in South East Ethiopia. Predictors of women's autonomy in determining self and child healthcare utilization	706	Primary data (Structured Questionnaire)	Non probabilistic sampling	Quantitative	Autonomy (Economic autonomy, decision autonomy, physical autonomy/ mobility)	Age, residence, income, ethnicity, religion, education, employment, family size, marriage type, parity, husband's education, employment	Bivariate analysis and multiple logistic regression

Table 2.

To be Continued

Sample ID	Author	Year	Setting	Research Theme	Sub- theme	Sample Size	Data Source	Sampling	Data type	Dependent Variables	Independent Variables	Statistical Model
18	Osamor et al.	2018	Nigeria	Identification of factors determining women's healthcare decision autonomy through an empirical evidence	Implication of economic and socio-demographic factors on women's healthcare decision making Understanding of the regional differences in Nigerian women's healthcare related decision making autonomy	27135	2013 Nigerian demographic and health survey	-	Quantitative (secondary data)	Healthcare decision autonomy	Residence, female occupation, family wealth, religion, education, age	Logistic regression modelling
19	Ramadhan et al.	2009	Indonesia	Identification of the determinants of women's autonomy in Indonesia	Identification of the role of women's labor force participation on their autonomy. Identification of the role of kinship norms on women's autonomy.	6,016	Indonesian Family Life Survey (IFLS3) conducted in 2000	-	Quantitative (secondary data)	Economic autonomy, Decision making autonomy, Physical autonomy (mobility)	Paid work status, kinship norms, age, education, religion, economic status, geographic region	Probit model, 2SLS (two-stage least squares) model

Table 2.
To be Continued

Sample ID	Author	Year	Setting	Research Theme	Sub- theme	Sample Size	Data Source	Sampling	Data type	Dependent Variables	Independent Variables	Statistical Model
20	Regassa et al.	2016	Sidama Zone, Southern Ethiopia	Identification of various micro-level factors determining women's household decision autonomy	Understanding of the overall status of women's autonomy in Southern Ethiopia. Identification of various factors and role of socio demographic determinants in determining women's autonomy.	231	Primary data (cross sectional household survey, focus group discussion)	simple random sampling	Quantitative & qualitative	Health care autonomy, major household purchases Autonomy and physical autonomy	Age, age difference between spouses, self-education, husband's education, wealth, marital form, land owned, household size, husband's frequency of alcohol use	Ordinary Least square regression
21	Ristiana	2018	Indonesia	Understanding of the bi-directional relationship between women's work and decision making autonomy	Understanding the bi-directional relationship between women's paid work status and their household decision making autonomy. Role of various socio-demographic factors on women's decision making autonomy	30142	Indonesian Demography and Health Survey 2012(SDKI, 2012)	-	Quantitative (secondary data)	Autonomy (high, medium)	Works status, residence (urban/rural), economic status, age, first marital age, education, husband's education	Multinomial logistic regression model
22	Samari et al.	2018	Egypt	Exploration of the determinants of women's autonomy over time in Egypt	Understanding of individual and household characteristics on women's autonomy over time. Understanding of whether the effect of household and community on women's autonomy is beyond that of their individual characteristics.	4655	2006 and 2012 Egyptian Labour Market Panel Survey (ELMPS)	-	Quantitative (Secondary data)	Economic autonomy, Decision making autonomy, Physical autonomy (mobility)	Age, education, age of first marriage, dowry, paid status, region, wealth, husband's education	Logistic regression model, Ordinary Least Square, Negative Binomial

Table 2.

To be Continued

Sample ID	Author	Year	Setting	Research Theme	Sub- theme	Sample Size	Data Source	Sampling	Data type	Dependent Variables	Independent Variables	Statistical Model
23	Sathar et al.	2000	Pakistan	Exploration of the elements that constructs women's autonomy in rural Pakistan.	Identification of the role of women's employment, education and other demographic variables on women's autonomy. Exploration of different dimensions of autonomy.	1036	Primary (survey questionnaire, interview & focus group interview)	Clustered random sampling	Quantitative and qualitative	Women's autonomy (economic autonomy, decision making autonomy, physical autonomy/ mobility, access to wealth, communication)	Age, family structure, education, husband's education, income, women's work outside home and inside home, religion	Multinomial logistic regression model
24, 25, 26	Senarath et al.	2009	Nepal (24), Bangladesh (25), India (26)	Understanding of women's autonomy in self-healthcare decision making and its determinants	Identification of the factors behind women's autonomy in their self-health care in three South Asian countries. Identification of women's autonomy in use of contraception.	8726 (Nepal), 10582 (Bangladesh), 89199 (India)	Nepal Demographic and Health Survey (DHS) 2001, Bangladesh DHS 2004, National Family Health Survey India 1998-1999	-	Quantitative (secondary data)	Women's participation in healthcare related decision making (solely/ participation)	Age, education level, status of employment, household wealth index, residence type	Logistic regression
27	Sultana	2011	Rural Bangladesh	Exploration of factors determining women's autonomy and decision making power in household.	Exploration of women's autonomy and decision making power at household level. Identification of factors behind women's decision making power within household.	339	Primary data (cross sectional survey)	Non probabilistic sampling	Quantitative	Decision making autonomy (linear transformation done to make it a continuous variable) : Decision Making Power Index (DMPDI)	Age, religion, education, income, parity	Linear Regression Model

Other Determinants of Autonomy

The search involved the paid work status of women for each result. These studies mentioned several other factors and their degree of association with women's autonomy. The two major factors associated with this are women's education in terms of secondary or higher education, and age. A total of 17 (60.71%) studies included education as a demographic covariate of women's autonomy, of which 12 (42.9%) found it to be significant, one insignificant, and four found it to be inconsistent, that is, not significant in all geographic locations.

Women's age was found to be another important factor; that is, higher age was

Table 3
Characteristics of the Included Studies (n=28)

Sample ID	Author	Year	Interpretation of decision autonomy and paid work status	Interpretation of decision autonomy with other variables of importance
1	Acharya et al.	2010	Decision making autonomy (healthcare, major household purchase, daily household purchase, mobility) increases with (paid) work in all dimensions	Positive- age, secondary education, middle income group
2	Alemayehu et al.	2017	Autonomy increases with occupation	Positive- husband's education and age Negative- wealth index, family size
3	Anderson et al.	2009	For all 7 sub measures of women's autonomy, women's work for income is a significant positive contributor	Positive- woman owns farm, woman works in farm, woman head of the family Insignificant- family income Inconsistent- Women's age and education, husband's age and education
4	Bloom et al.	2001	Employed women were much more likely to have high control over finances, high decision-making power, and a tendency toward high freedom of movement	Positive- Education (on freedom of movement). Frequent contact with natal kin Insignificant- Economic status, age, parity and living with mother in law
5	Hakim	2003	Professional job increases autonomy significantly but non-professional job does it without statistical significance	Positive- higher age, Secondary education (in child health decision only), Rural residence Inconsistent- Family size, Mother tongue
6,7,8	Heaton et al.	2005	In Nicaragua and Peru samples, women's employment significantly increases autonomy but the result is insignificant and inconsistent in Bolivia	Positive- socio-economic status (except Bolivia), urban residence (in Peru) Insignificant- household size, age of marriage, husband's education Inconsistent- education

Table 3

To be Continued

Sample ID	Author	Year	Interpretation of decision autonomy and paid work status	Interpretation of decision autonomy with other variables of importance
9, 10, 11	Jejeebhoy	2001	Wage work in last 12 months has raised odds of autonomy in Uttar Pradesh and Tamil Nadu, but not significantly in Punjab	Positive- Secondary education (in all regions), Tamil Nadu region, Age, Number of goods owned. Negative- Residing with mother in law (Punjab and Uttar Pradesh) Insignificant- nil Inconsistent- Religion, Country, Parity
12	Jose	2008	Paid employment increases women's decision making autonomy	None
13	Kabeer et al.	2018	Self-employment and formal wage work have significant impact on autonomy, informal wage work and unpaid work have inconsistent effect	Positive- age, woman is family head, family asset, personal asset. Inconsistent- marital status, religion, education, wealth, region
14	Kamiya	2011	Insignificant relation of decision autonomy and last 14 days paid work status	Positive- Husband's education, husband's ethnicity, Negative- husband's age Insignificant- age, ethnicity, education
15	Lamidi	2016	Women decision making autonomy is significantly dependent on both professional and non-professional employment	Positive- Education, wealth, age, ethnicity, catholic religion Negative- Number of children, sharia law practising state, Muslim religion Insignificant- residence (urban/rural), age gap
16	Mishra	2011	Paid job has very high contribution to all facets of autonomy (economic, healthcare, purchase decision, mobility)	Positive- Urban Location, Christian religion Inconsistent- Education, Wealth
17	Nigatu et al. 2014	2014	Decision autonomy is significantly related to individual income, employment, including husband's status of employment	Positive- Residence (urban/ rural), Education, monogamous marriage Negative- Nuclear family Insignificant- age, ethnicity, religion
18	Osamor et al.	2018	Decision autonomy has insignificant positive relationship with current paid work status but employment in professional sectors has high decision autonomy	Positive- urban residence, age, secondary education, non-Islamic religion, family wealth Negative- decreases with husband's occupation
19	Rammoh an et al.	2009	Paid work status has positive effects on female autonomy.	Positive- Secondary (high school) education, middle age Negative- household size. Inconsistent- wealth, kinship norm, rural/urban residence and spouse's education

associated with better autonomy. This was included in 16 studies, and it was observed as significant in 10, insignificant in four, and inconsistent in two studies. Family wealth, husband's education, residence, household size, religion, parity, husband's age, natal kinship, and women-headed families were other major factors associated with women's autonomy (see Table 3).

Husband's Education and Occupational Status

Since this study discusses women's work as a primary determinant of autonomy, to which women's level of education has been found to be the second-most important contributor, the husband's education and occupation status have also been included in studies of married female respondents. Although eight studies have considered husbands' education as a factor in women's decision autonomy, only two studies show that it is a significant positive contributor to women's autonomy (Alemayehu & Meskele, 2017; Kamiya, 2011), suggesting that educated husbands are more open to concepts of gender equality and give equal importance to their partners' involvement in independent decision making. However, three studies showed an insignificant effect of husbands' education on women's decision autonomy (Heaton et al, 2005; Regassa & Regassa, 2016; Sathar & Kazi, 2000), two showed inconsistent effects (Anderson & Eswaran, 2009; Samari & Pebley, 2018), and one even showed a negative effect (Ristiana & Handayani, 2018). Due to such wide variation in the perceived effect of husband's education on women's decision autonomy, meta-analysis with husband's education was not performed to measure effect size (see Table 3).

Only one study has taken husband's occupation as a determinant of women's decision autonomy (Osamor & Grady, 2018); however, the result shows a negative effect, suggesting employed husbands are more restrictive in relation to their partners' decision autonomy (see Table 3).

Outcomes of the Meta-analysis

Out of the 12 studies selected for meta-analysis, 11 were found appropriate for calculating log odds ratios and standard errors for meta-analysis of decision autonomy (autonomy vs. no autonomy) as the dependent variable and women's paid work status (paid employment vs. no paid employment) as the independent variable. The overall effect is highly significant ($p < 0.001$) with a net odds ratio of 1.26 (95% C.I.= 1.17-1.36). However, the heterogeneity estimates of the effect

Table 4
Summary of observations (n=28)

Countries included in the review					
Name of country	n	Income group (World Bank)	GNI/capita, (USD), 2019	HDI (2019, UNDP)	Global Gender Gap Index (WEF, 2020)
India	6	Lower- Middle	2130	0.647	0.668
Pakistan	3	Lower- Middle	1530	0.56	0.564
Bangladesh	4	Lower- Middle	1940	0.614	0.726
Nepal	2	Lower- Middle	1090	0.579	0.68
Indonesia	2	Upper-Middle	4050	0.707	0.7
Tajikistan	1	Low	1030	0.656	0.626
Egypt	1	Lower- Middle	2690	0.7	0.629
Nigeria	2	Lower- Middle	2030	0.534	0.635
Ethiopia	3	Low	850	0.47	0.705
Chad	1	Low	700	0.401	0.596
Peru	1	Upper- Middle	6740	0.759	0.714
Bolivia	1	Lower- Middle	3530	0.703	0.734
Nicaragua	1	Lower- Middle	1910	0.651	0.804

Dimensions of autonomy		
Variables	n	%
Decision autonomy	27	96.4
Economic autonomy	14	50
Physical autonomy (mobility)	13	46.4
Personal autonomy	3	10.7
Family autonomy	2	7.1

Major determinants of autonomy						
Variables	Significant positive	Significant Negative	Insignificant	Inconsistent	Total mention	%
Women's employment	22	1	4	1	28	100
Education (Secondary)	12		1	4	17	60.71
Age	10		4	2	16	57.14
Family wealth	4	1	4	3	12	42.86
Husband's education	2	1	3	2	8	28.57
Residence (urban)	4	1	1	1	7	25.00
Household size	2	3	1	1	7	25.00
Religion	3		2	2	7	25.00
Parity	1	1	2	1	5	17.86
Husband's age	1	1		1	3	10.71
Natal kinship	1			1	2	7.14
Woman headed family	2				2	7.14

sizes of all eleven studies were high ($I^2=90\%$, $p < 0.001$). Hence, a subgroup analysis was conducted based on the geographical location (South Asian countries vs. non-South Asian countries). Since the peculiarity of women's paid work status in South Asian countries in contrast to non-South Asian countries has been discussed, the choice of this subgroup was made accordingly.

In the subgroup analysis, five samples were from South Asian countries, of which three were from the same author (Senarath & Gunawardena, 2009) with different regression models for samples from Bangladesh, India, and Nepal. There were six non-South Asian studies, four from African countries, and one each from Indonesia and Tajikistan, both Asian countries. The South Asian subgroup again showed high effect heterogeneity ($I^2=96\%$, $p < 0.001$), which explains the high variability of the relationship between decision autonomy and women's paid work status in South Asian countries. This might be due to regional differences in societal norms or differences in the research methodology. However, the odds ratio of decision autonomy in working women was statistically significant (OR=1.30, 95% CI= 1.16- 1.45, $p < 0.001$) and similar to the net odds ratio of all 11 studies. In contrast, the subgroup of non-South Asian studies had significantly higher homogeneity ($I^2=49\%$, $p=0.08$) and the total effect size for this subgroup was also statistically significant (OR=1.21, 95% CI= 1.09-1.35, $p=0.0006$). The differences in the subgroups were not statistically significant ($p=0.38$) despite the difference in heterogeneity between the two subgroups. This proves that although the South Asian subgroup has variability in effect sizes, the overall effect is not much different from that of a subgroup in which the differences in effect size are less. Figure 2 shows the forest plot and funnel plot of the effect sizes overall and for the subgroups.

Among the other variables in our synthesis, we see that secondary education, respondent age, and family wealth are important predictors of women's decision autonomy. However, there are a high number of insignificant relationships between family wealth and women's decision autonomy. Therefore, these variables were excluded from this meta-analysis. On the other hand, most studies categorized the "age" variable into different ranges. Hence, the odds ratios were not comparable.

It is observed that many studies have found level of education (secondary or higher) to have a consistent relationship with decision-making autonomy. Ten of the 12 studies included in the meta-analysis modelled the relationship between secondary education and decision autonomy. In the meta-analysis, we found that the effect sizes were relatively homogeneous ($I^2=47\%$, $p=0.05$) and the odds ratio of

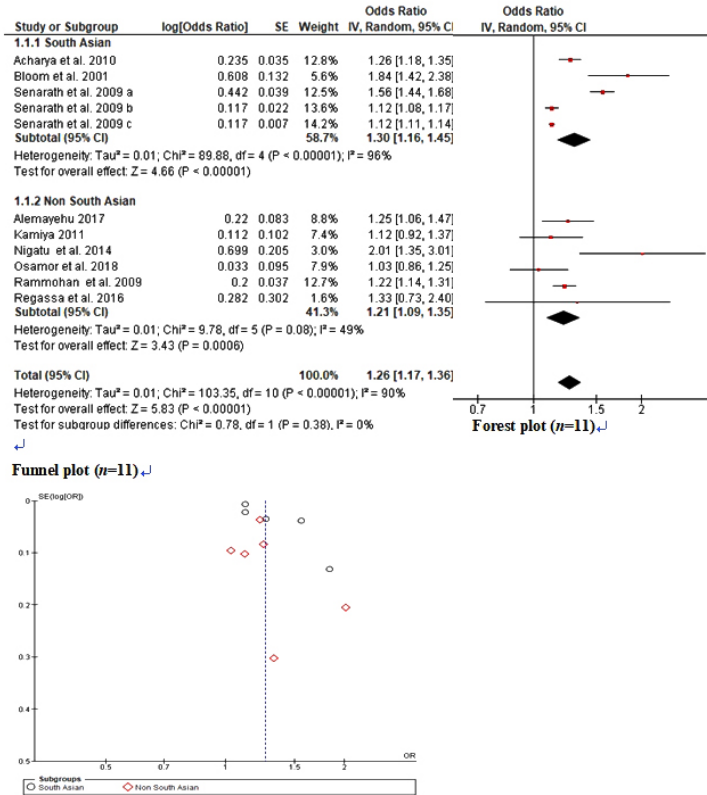


Figure 2. Meta-analysis of Decision Autonomy and Women’s Paid Work Status

the total effect was 1.24 (95% CI= 1.19-1.30, $p < 0.001$). By coincidence, the odds ratios in the meta-analysis for educational level and women’s paid work status are very similar. Figure 3 depicts the results of the meta-analysis of women’s decision autonomy in relation to secondary or higher levels of education.

Discussion

Synthesis

The measurement of women’s autonomy has principally been based on their freedom to access and enjoy ownership of money and assets, independence of decisions in various aspects of the household, including purchase decisions, and free-

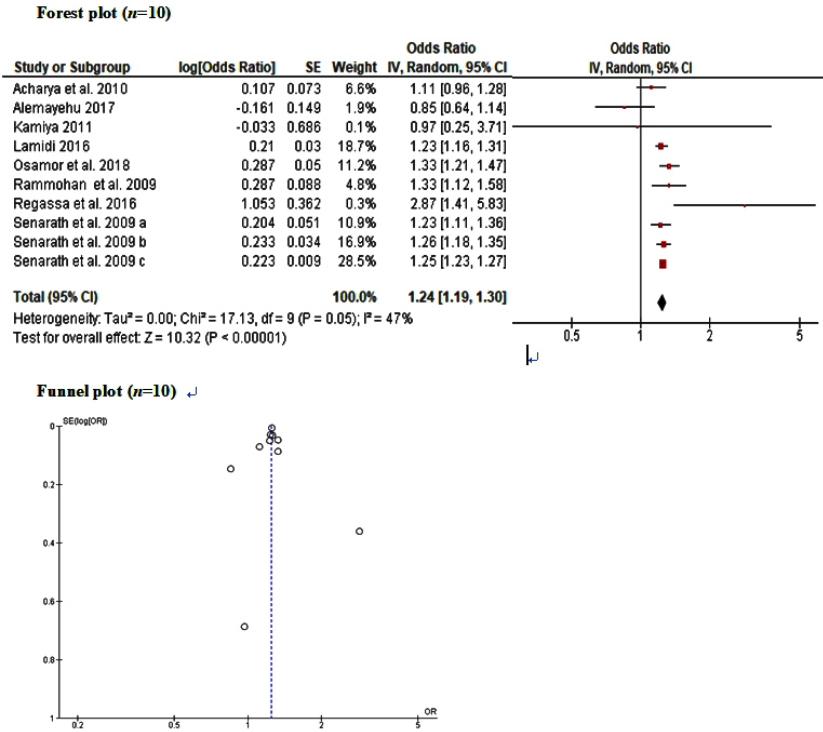


Figure 3. Meta-analysis of decision autonomy and women’s education

dom of movement. Such autonomy has been portrayed as a part of women’s empowerment. While autonomy is undoubtedly difficult to measure, a variety of indicators can be used to do so. However, no gender gap-measuring index has included women’s autonomy; rather, women’s political inclusion has been taken as a surrogate marker for empowerment.

Decision-making autonomy is the most important dimension of women’s autonomy, as it is the most discussed component and has many subdimensions. Economic autonomy may be influenced by the economic status of a woman’s natal kin, dowry, and increased control of household assets with increasing age. In addition, women’s paid work status and economic autonomy are said to be indistinguishable in many studies (Susilastuti, 2003; Varghese, 2011). Hence, a regression study of economic autonomy with women’s paid work status might be biased. On the other hand, the reach of decision autonomy covers every facet of a woman’s life, from the purchase of household items to the utilization of

healthcare. The freedom to make decisions has also been related to freedom of movement. Hence, in this study, decision-making autonomy was measured as women's autonomy in relation to other variables.

It is worth mentioning that among low- and low-middle-income group countries, South Asian countries have especially focused on studies of women's autonomy. Societal norms contradict the economic growth of this region, and gender disparity in labor force participation is highly influenced by social norms (Asadullah, Savoia, & Sen, 2020; Jayachandran, 2020). Apart from South Asia, most studies are from Africa, especially Ethiopia and Nigeria, while Latin American countries have both higher Human Development and Global Gender Gap indices.

Studies that discuss decision autonomy and paid work status also emphasize secondary education level, age, and family wealth. The latter two have been observed to be nonsignificant in many cases. The World Economic Forum commented that India's women cannot share and enjoy household wealth at all socio-economic levels (Tandon, 2018). Thus, women's economic participation is an independent contributor, despite the contribution of family wealth to women's autonomy. This may raise questions regarding the modernization theory of gender development (Gwynne, 2009), as increased wealth does not ensure the empowerment and well-being of women. Rather, the outcomes of our synthesis reflect ideas from the dependency theory of gender inequality (Scott, 2021) and reflect a process whereby participants engage in an intra-household cooperative game to attain an equilibrium of autonomy through economic contributions by both genders.

Meta-analysis

The current study is the first to perform a meta-analysis of women's decision autonomy and paid work status. Previous meta-analyses were conducted on women's employment and fertility (Matysiak & Vignoli, 2008) and on the effect of gender proportionality on job performance (Mackey, Roth, Van Iddekinge, & McFarland, 2019). Hence, the present study may pioneer statistical approaches to the matter of women's employment and their autonomy in decision-making. Initially, we observed considerable heterogeneity in the effect sizes of paid work status on decision autonomy, especially in South Asian countries. However, such heterogeneity does not obviate the effectiveness of meta-analysis, where the total effect has been seen to be highly significant even for the subgroups, and the odds ratios are also very similar, showing that women's employment has a consistent effect on autonomy. Lewin (2013) concluded that heterogeneity in social science is

obvious because social systems are composed of heterogeneous elements with categorical dynamism and ambiguity owing to their complex nature. On the other hand, our findings confirm that women's employment has a positive effect on their decision autonomy. This implies that women's work imparts autonomy in decision-making. In our study, the causal relationship of paid work to women's autonomy is shown through an odds ratio of "overall effect." Although such causal inference has a real effect, there are limitations to such an inference when accomplished through meta-analysis (Weed, 2000).

Besides women's paid work status, education is an emergent and important component of decision autonomy, as per this study. Our results show that the effect of education is homogeneous among studies and makes a significant positive contribution to women's decision-making autonomy. The overall effect shows that the odds ratio of the effect of education on decision autonomy is similar to that of paid work status. However, for South Asian countries, the odds ratio for education is marginally lower than that for paid work status, which highlights the necessity for further statistical study in this context. Existing research has different opinions on the relationship between women's education and their work. Yousefy and Baratali (2011) observed that higher education has been positively related to increasing salaries among already working women. Although a higher level of education increases the employability of women, the actual labor force participation of women has not been seen to increase. Rather, in many Asian countries, higher levels of education among women results in a reduction or stagnation of female labor force participation levels; this is termed the MENA (Middle East & North Africa) paradox (Assaad et al., 2020). However, the importance of education in decision-making autonomy cannot be denied.

In a theoretical context, our work supports the idea that paid labor leads to sufficient intra-household bargaining (Doss, 2013), which translates into autonomy and endows women with resource allocation power. In contrast to relational autonomy theory (Mackenzie & Stoljar, 2000), we propose the possibility of a cooperative game inside the family when women have a paid job. Although further research is needed to determine whether such interaction increases the marginal utility of all agents, we propose that sustainable autonomy can exist in the family as a result of the equilibrium in resource allocation power.

Practical Implications of the Findings

Research shows that women's economic participation leads to better autonomy

(Buller et al., 2016; Cornish et al., 2021; Ortiz-Rodríguez et al., 2017). However, during crisis periods or tough times like famine, war, and poverty, women's overall conditions deteriorate and patriarchal social norms get re-imposed (McLaren, Wong, Nguyen & Mahamadachchi, 2020). This is reflected in the recent COVID-19 pandemic, which has had a gendered impact on society. A report by Care International shows that during the COVID-19 pandemic, women were more likely to be thrown out of the labor market than men, and the resultant reduction in their financial contribution to the household decreased their decision-making autonomy (Buschmann & Fuhrman, 2020). Another report by United Nations Women showed that the loss of income for women forced them to assume a larger care work burden and increased the risk of intimate partner violence. They were "trapped" in the abusive situations and the loss of employment further undermined such women's autonomy, making it much more difficult or even impossible for them to flee from the violent situation at home (UN Women, 2020).

Limitations

This systematic review has certain limitations. First, there have been few studies on women's workforce participation and decision autonomy, and this is especially the case for South Asian countries. Second, most of the studies in this area are relatively contemporary; thus, the historical perspective of women's autonomy is not well understood. Third, qualitative data was difficult to find because most of the studies were conducted quantitatively using secondary data. Had qualitative data analysis been available, the dynamicity and scope of women's autonomy could have been better understood. Fourth, as stated in the inclusion criteria, only studies published in English were included in this systematic review, which may have resulted in a range of potential sources being excluded.

Conclusion

This synthesis of major studies concludes that there is a significant positive relationship between women's paid work status and their decision autonomy. The major dimensions of women's decision autonomy are in the areas of healthcare decision making, purchasing of household items, and investing large amounts of money in asset purchasing. This systematic literature review also shows that the possession of wealth or heading a family does not provide women with decision autonomy. Among the other significant contributing factors to women's auto-

my, education has been found to be an important component. However, in contrast to the findings of many existing studies, this systematic study shows that the contribution of women's education to their autonomy is consistent. Furthermore, it is also observed from this study that husbands' education and occupation do not empower women in terms of their decision-making autonomy.

Further field research is needed to explore the dynamics and critical factors associated with women's labor force participation and their autonomy in decision-making. In particular, we need to understand whether unpaid work gives autonomy to women or how the social norm works as a mediator in the pathway of attaining autonomy as a result of women's participation in paid work.

Conflicts of Interest

The author declares that there are no conflicts of interest.

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