



Navigating Challenges and Opportunities: Insights from Women in Multifaceted Research Careers

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Abstract

The gender distribution of American Psychological Association (APA) writers from 1963 to 2016 is the main subject of this paper, which is an investigation of gender gaps in research disciplines. The study examines how women have been represented in APA publications over six decades using a quantitative analysis of authorship data. The research intends to provide insight into the obstacles and advancements experienced by women in scientific authorship through an analysis of gender representation trends. Using historical records from 1963 to 2016, the process entails gathering and evaluating data on the gender makeup of APA writers. The percentage of female authorships in APA articles is compared over time and across various study fields using statistical analysis. The influence of gender prejudices on women's involvement and recognition in research disciplines is also examined, as is the discrepancy in gender representation in important publications. The results show that women are now significantly more represented as authors in APA papers than in the 1960s, with women holding 46.4% of authorships between 2012 and 2016. Female parity in scientific authorship is still a work in progress as seen by the persistent discrepancies in female representation across research domains. The study emphasizes how crucial it is to deal with biases and structural problems to advance inclusion and gender equality in research settings.

Keywords: Gender Disparities, Research Fields, American Psychological Association, Women's Representation, Gender Bias, Inclusivity, Scientific Authorship, Gender Parity, Methodology, Quantitative Analysis, Gender Composition

Introduction

In the period of multifaceted research careers, women have played a vital role but often their contributions are under recognized. Their contributions today span various fields. Science and technology to social and humanities are shaping the diverse landscape of knowledge creation and innovation. However, meandering the challenges and opportunities inherent in such careers can be complex, requiring a nuanced understanding of the barriers and several strategies to overcome them. This paper would help us to explore the variety of insights, which are gleaned from women who have forged paths in diverse research careers. The purpose of this work is to investigate the perspectives gained from women who have succeeded in interdisciplinary research careers. We

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hope to shed light on the variety of obstacles people face and the chances they take advantage of during their career paths by investigating their experiences, viewpoints, and methods. We want to identify the fundamental processes influencing women's experiences in diverse research professions by combining personal narratives, empirical research, and theoretical analysis. This paper will explore the numerous elements impacting women's involvement and success in varied research careers, drawing on a rich tapestry of literature and direct stories. We will examine the various factors influencing women's career paths in research, ranging from cultural norms and institutional hurdles to individual drives and support systems. We will also look at the tactics used by women to overcome these obstacles, such as networking, campaigning, and mentoring. In conclusion, this study seeks to further our awareness of the nuances of women's experiences in diverse research occupations and offer suggestions for resolving these issues to promote more gender parity and inclusion in the field of research.

Objectives

1. To investigate the evolution of Gender representation in publications.
2. To investigate the impact of gender prejudices on Authorship Disparities.
3. To examine factors influencing women's success in multifaceted research careers.
4. To analyse the strategies for overcoming gender disparities in Multidisciplinary Research.

Research Design:

Quantitative Analysis: To compile information on the gender distribution of authors in American Psychological Association (APA) publications, historical records from 1963 to 2016 is examined. A statistical analysis is done to find trends and differences in the ratio of female authors across different research disciplines and over time in APA publications.

Literature Review: To set the scene for the study, researchers have thoroughly examined the body of knowledge already available on gender discrepancies in research fields.

Brief Overview of the Increasing Presence of Women in Multifaceted Research Careers

Women are becoming more and more prevalent in multidisciplinary research jobs across fields in recent years. This pattern is a reflection of the continuous work being done in academia and industry to advance diversity and gender equality. Women are contributing significantly to multidisciplinary research by offering a range of viewpoints and proficiencies to tackle intricate problems. However, there has been a steady but slow growth in the number of women working in research, especially in STEM fields (science, technology, engineering, and mathematics). Gender inequality in academia continues to exist despite advances in science and technology, which affects female researchers at different phases of their careers. Women continue to be disproportionately underrepresented in STEM academic jobs, despite increases in the proportion of women in undergraduate, graduate, and postdoctoral programs. One major obstacle that still affects scientific output, authorship, and peer-review procedures is gender prejudice. Compared to their male counterparts, women are frequently underrepresented as first and final authors in peer-reviewed papers, earn fewer grants, and encounter difficulties in obtaining funding for their studies. Research has indicated that female scientists often hold fewer grants and earn lower rewards than male scientists, with the proportion of funding granted to women declining as career stages advance.

Opportunities to Advancement

As careers advance, several variables contribute to the widening gender disparity. These include prejudices in editorial positions, familial situations, publication and citation practices, and discrimination in patent approvals. As they move through various professional phases, the combination of these prejudices may cause many women to gradually give up on research

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careers. However, these nuances are gradually yet steadily shifting towards a more women-friendly research space. Therefore, several factors are contributing to the increasing presence of women in Multifaceted Research Careers. They are:

➤ **Shifting Societal Norms**

The way society views gender roles and expectations has gradually changed over the last several decades. Careers in historically male-dominated sectors, such as science, technology, engineering, and mathematics (STEM), are being pushed more and more for women. Women now have greater opportunities to pursue diverse jobs in research because of this societal shift.

➤ **Institutional Aid and Initiative**

Policies and initiatives to encourage and promote gender diversity in research have been put in place by several academic institutions and research organizations. These consist of financial possibilities, mentorship programs, and focused recruiting campaigns created especially to assist women in their research activities.

➤ **Technological Advancements and Collaborations**

Traditional barriers and silos have been broken down by technological breakthroughs that have encouraged cooperation and multidisciplinary study. These resources and platforms are being used by female researchers to facilitate cross-disciplinary collaboration and multidisciplinary research initiatives.

➤ **Endorsement and Support Networks**

Advocacy groups, professional associations, and networking opportunities are beneficial for women in research. These networks enable women to thrive in diverse research fields by offering them tools, mentorship, and a forum for exchanging experiences and best practices.

Efforts towards Equality

Initiatives such as the Research Partnership on Women in Science Careers have attempted to overcome these inequities. Through this collaboration, more than 100 papers addressing the obstacles women encounter in the academic health sciences have been published. To lessen these obstacles, many tactics have been suggested, including networking, external career programs, positive counter-stereotype imagery, good publishing records for women, addressing gender stereotypes, and effective mentoring and coaching.

Although there has been an increase in the number of women pursuing diverse jobs in research, gender prejudice and inequality continue to exist in several academic fields. To address these issues and provide a more welcoming and equal work environment for women researchers, individuals, academic institutions, and society at large must work together.

Importance of Understanding the Challenges and Opportunities Faced by Women in this Field of Research

Promoting gender equality, diversity, and inclusiveness in the research environment requires an understanding of the possibilities and constraints experienced by women in multidimensional research careers. Through acquiring knowledge about the distinct viewpoints and experiences of female professionals, we can pinpoint structural obstacles, tackle implicit prejudices, and execute focused measures to facilitate the professional growth and achievement of women in this domain. Furthermore, by encouraging cooperation, creativity, and the production of varied ideas, acknowledging the accomplishments of women in different research occupations benefits the research community.

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The enduring prevalence of gender preconceptions and prejudices is one of the major obstacles that women in diverse research fields must overcome. Women still face unconscious prejudices that affect their access to resources, chances for development, and employment practices, even in the face of progress made toward gender equality. Research has indicated that there are differences in job progression and recognition between men and women since women are frequently viewed as less qualified and competent than males (Heilman, 2012; Moss-Racusin et al., 2012). These prejudices make it harder for women to navigate the competitive, male-dominated world of research, which might impede their success and advancement in the field.

In addition, women who pursue diverse jobs in research frequently struggle with challenges related to work-life balance and family obligations, which can affect their professional paths. Long hours, travel needs, and publication pressures are just a few of the demands of research-intensive jobs that may disproportionately affect women, especially those who are also responsible for providing care. Studies have indicated that women are more prone than males to encounter conflicts between their duties in the home and at work, which can result in greater attrition rates and career disruptions (Hakim, 2000; Glass & Finley, 2002). Women may have obstacles to actively participating in research and developing their professions in the absence of sufficient support networks and accommodating regulations.

Women in diverse research jobs encounter many possibilities as well as obstacles to succeed and make important contributions to their disciplines. For example, women now have more opportunities to use their unique skill sets and experience to address difficult social concerns because of the increased emphasis on interdisciplinary research. Women frequently approach problems differently than males do, which leads to creative solutions and fresh views (Blickenstaff, 2005; O'Neil, 2014). Women may be key players in generating scientific innovation and expanding knowledge by encouraging cross-disciplinary collaboration and a variety of thinking. This could also help in the enhancement of the research field.

Initiatives to encourage women in varied research careers are also gaining traction as the value of diversity and inclusion in research is increasingly recognized. To address gender disparities, promote equity, and increase the representation of women in research leadership roles, academic institutions, funding agencies, and professional organizations are putting policies and programs into place (National Academies of Sciences, Engineering, and Medicine, 2018; European Commission, 2020). These activities include leadership development programs, networking events, advocacy campaigns, and mentorship programs aimed at empowering women and fostering an inclusive research environment.

Promoting gender equality, diversity, and inclusiveness in the research environment requires knowledge of the obstacles and possibilities experienced by women in varied research careers. We can foster an atmosphere where women may flourish and make outstanding contributions to research by tackling structural impediments, unconscious prejudices, and work-life balance concerns. Acknowledging and appreciating women's contributions benefits the research community by encouraging cooperation, creativity, and the production of varied ideas. Going forward more must be done to encourage and empower women to pursue careers in multidisciplinary research, which will eventually advance knowledge and promote constructive social change.

The Landscape of Multifaceted Research Careers

Persistent hurdles and changing possibilities characterize the environment of women's diverse research careers. Obstacles faced by women in senior leadership roles across the world include cultural norms, underrepresentation in decision-making roles, work-life balance concerns, restricted access to mentors and networks, and gender prejudices. Effective tactics include focused talent development programs, diversity efforts, flexible work schedules, cooperation with

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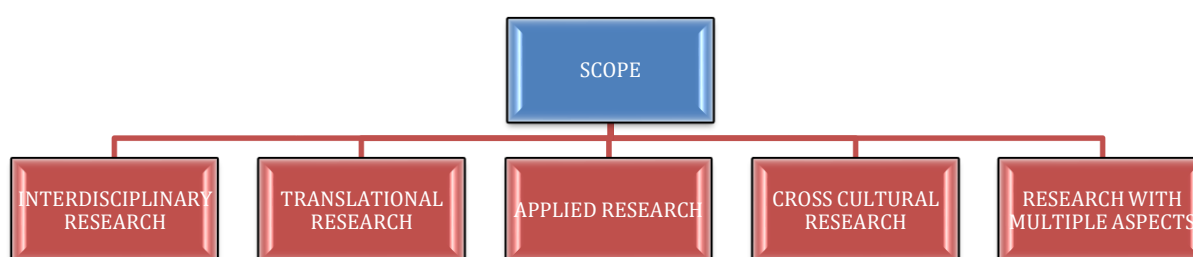
advocacy organizations, and empowerment via education have been suggested as ways to address these issues and foster a more inclusive workplace.

Definition and scope of multifaceted research careers

Research occupations that are multifaceted cover a wide range of positions and tasks that cut across several fields, approaches, and knowledge domains. People who work in multidisciplinary research occupations collaborate across disciplines, take on challenging issues, and come up with creative solutions by combining knowledge from several domains. These professions frequently entail working with specialists from several domains, doing research across conventional disciplinary boundaries, and applying knowledge from one subject to problems in another. This helps them to widen their knowledge and also explore through the various disciplines.

Multifaceted research careers are broad and cover a variety of fields, such as but not restricted to:

- **Interdisciplinary Research:** To effectively handle complex issues that cannot be sufficiently addressed within a single academic framework, multifaceted research careers require cooperation with specialists from several disciplines (Klein, 2010).
- **Translational Research:** A variety of research vocations might entail converting discoveries from fundamental studies into useful applications that advance society, such creating new tools, treatments, or regulations (Trochim et al., 2008).
- **Applied Research:** According to Stake (2006), jobs in multifaceted research may also entail performing applied research to solve pressing issues in the fields of social justice, healthcare, environmental sustainability, and economic development.
- **Cross-Cultural Research:** Researching the similarities and variations in human behavior, cognition, and social systems across cultural contexts is one of the many facets of multifaceted research careers (Berry, 1980).
- **Research with Multiple Aspects:** Careers in multidisciplinary research may entail carrying out longitudinal studies, which monitor individuals or groups over time to comprehend life cycle changes, developmental trajectories, and the effects of interventions (Elder et al., 2003).



In general, those pursuing multiple research jobs need to be flexible, imaginative, and receptive to new ideas as they work to solve complicated issues, negotiate the challenges of multidisciplinary collaboration, and expand knowledge in a variety of fields.

Objective: 1

To investigate the evolution of Gender representation in publications

Statistics on Women's Participation and Representation in Research Fields

Many works have been conducted by scholars to determine the biasedness and gender disparity in the field of innovation. In this paper, we have also analyzed the previous works conducted to review the participation of women in the field of multifaceted research. To do so, we have gone through a few kinds of literature, and thus, we were able to gain insight into the relative

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participation of women in comparison to men. This statistical study will allow us to enhance our knowledge and also will enable us to look at the innovation field with a new perspective. Thus, we undertook an article by Gonzalez-Alvarez and Sos-Pena (2019), where they conducted a critical analysis of how Gender imbalance in science continues, even in psychology, despite recent progress. The gender distribution in American Psychological Association publications from 1963 to 2016 is examined in this study. Women's representation rose over six decades, reaching nearly gender parity in the 2010s from only 12% in the 1960s. Generally speaking, women are underrepresented as final writers but overrepresented as first authors. Women have surpassed males as new APA writers during the past 20 years, suggesting a change in gender roles. The age distribution of APA authors may be influenced by their age, as seen by the longer publishing histories of men.

Objective: 2

To investigate the impact of gender prejudices on Authorship Disparities

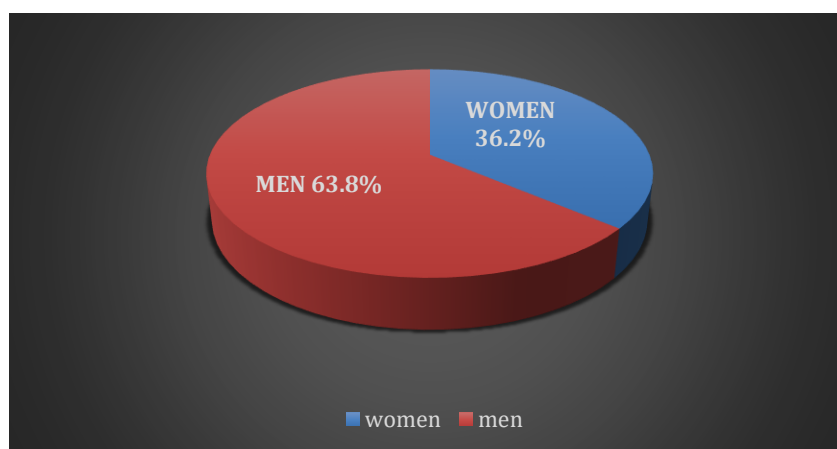
Gender Disparity in Research Statistics

According to the article analysed the gender disparity is seen to be very evident in the field. Since only 28% of worldwide researchers are women according to UNESCO. Through this paper, we also get to know that women represent fewer than 30% of scientific authorships globally. Also, academic studies were conducted and according to these findings, the large-scale studies confirm that global gender equity prevails in various domains. The asymmetry also extends beyond research to hiring, promotion, and earnings. Since this article focuses more on the psychology research terrain, hence, it is observed that there is an evident research gap between the doctorates and established researchers. It is seen that women tend to publish more papers or articles in Developmental psychology rather than Experimental Psychology.

Overall, Gender Composition

There were 51,472 female authorships, or 36.2% of the total, and 90,651 male authorships, or 63.8% of the whole, according to the gender distribution among APA writers. Gonzalez-Alvarez and Sos-Pena (2019),

Figure: 1



In the above figure, we can see that the female authorship is very less in comparison to the male authors. This could happen because of various reasons such as gender biasedness, male domination in the research field etc. but with the evolution over decades the gender structure of APA contributors has significantly changed, since the period of 1960s, during this particular era the women authorships, drastically increased from 12.9% in 1960s to 46.4% in 2012-2016, by bridging the gap of gender disparity.

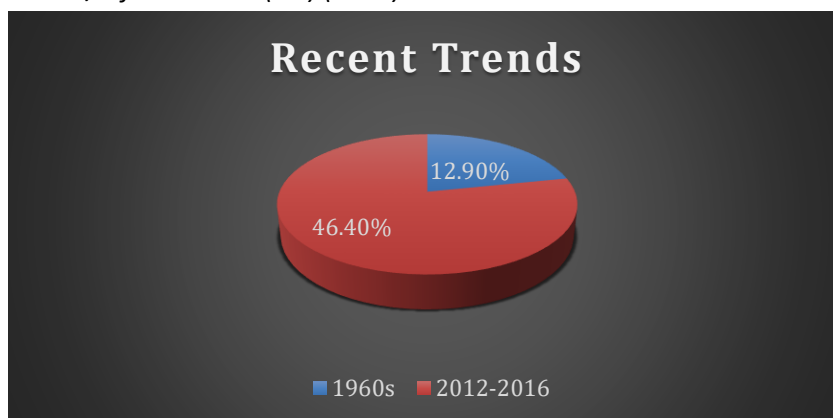
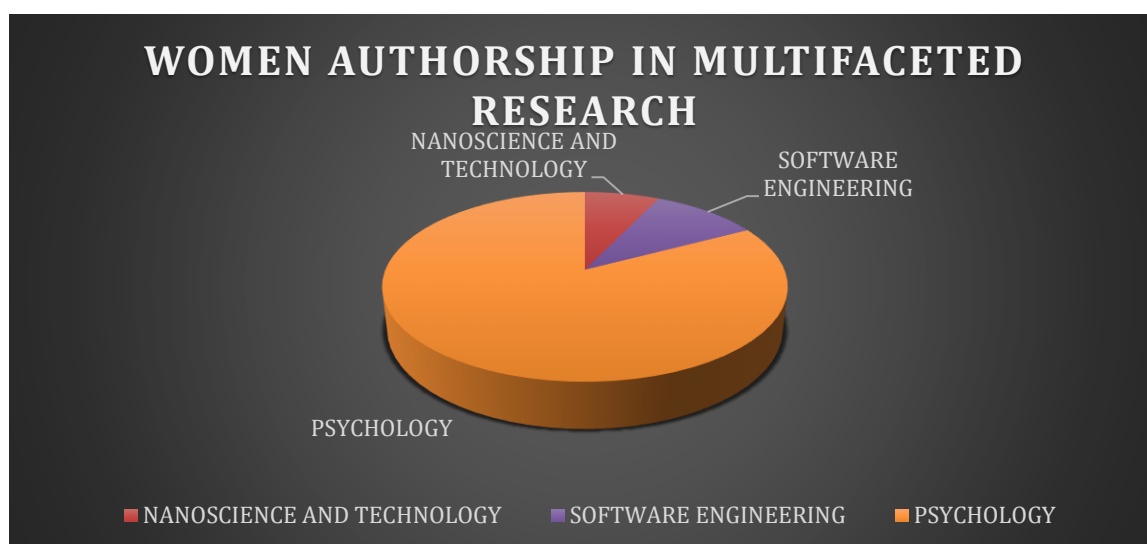


Figure 2

When we move forward and look at the productivity gender difference between male authors and female authors, we can see that, male authors had 2.53 authorships per man. When we focused our shift towards the female authors, had only 1.74 papers per woman, which was seen to be far less as compared to the male authors. This signifies the major gender difference in productivity among the APA authors. Thus, through the data provided, we could see that significant changes were notable in the gender distribution among APA authors over the period. Gonzalez-Alvarez and Sos-Pena (2019),

Figure 3



Therefore, through Figure 3, we can conclude that the terrain around women's involvement in research is complex. There are notable disparities in gender representation: women made up 12% of contributors in Nanoscience and Technology, but only 17.2% of female writers in Software Engineering. Women continue to be underrepresented in prestigious publications, even though their number in the medical industry has risen over the years. Women now account for 45.2% of psychology research authorships and 46.4% of authorships in journals published by the American Psychological Association, indicating positive trends. However, there remains a persistent gender gap in science writing, with fewer than 30% of authors being women worldwide. Only 28% of researchers globally are women, according to UNESCO, suggesting a structural problem. These results are supported by academic research, which also reveals gender disparities in salaries, promotions, and jobs. Achieving gender parity in scientific authorship and other research domains is necessary to address these discrepancies.

Moving forward, we undertook yet another paper formulated by, Ross, M.B., Glennon, B.M., Murciano-Goroff, R. et al. namely 'Women are credited less in science than men' to analyse the contribution of women, in this particular paper, a thorough study is done, where it is seen that women are 4.82% less likely to be named as authors compared to men. The disparities in

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authorship attribution negatively impact senior women's retention and young women's attraction to scientific careers. It is seen that, in scientific publications, women continue to struggle to be given credit as they should, which is a sign of larger differences in job titles and fields of study. Attempts to standardize credit distribution have not eliminated gender disparities in authorship. Gender differences in credit distribution among research teams are supported by qualitative data and interviews in this paper, which provides us with a broader point of view regarding the status of women in the field of innovation.

In this particular investigation, the information shows notable differences in authorship between the sexes in all scientific fields. In biology, women writers' representation is 15.02% short of women potential authors' representation; in physical science, the difference is 14.12%. Women are identified in scientific publications with a chance of 2.12% compared to 4.23% for males, which is a considerably lower likelihood than for men. These differences continue to exist between organizational ranks, suggesting systematic biases in the distribution of credit.

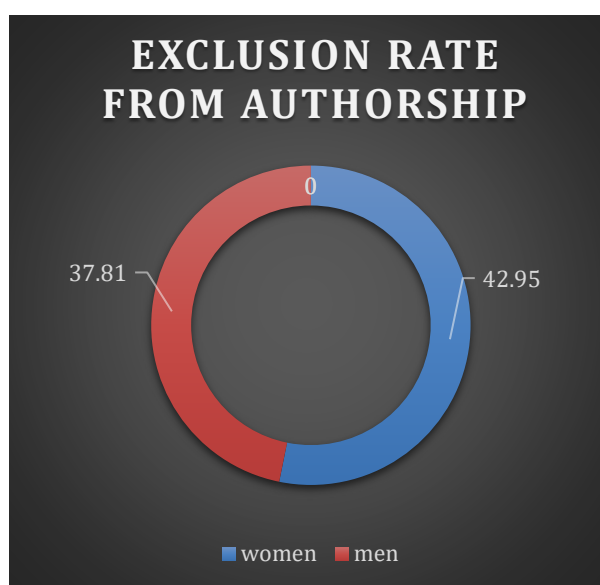


Figure 4

The breadth of these differences is further demonstrated by survey results. Women reported being excluded from authorship at a much higher rate (42.95%) than did males (37.81%) (Ross, M.B., Glennon, B.M., Murciano-Goroff, R. *et al*) as we can see in Figure 4. Furthermore, a considerable minority of males (39.13%) agreed with almost half of women (48.97%) who believed that others undervalued their efforts. The aforementioned qualitative data highlights the widespread presence of gender-based prejudices in authorship identification across research teams. Women continue to have a 4.82% lower chance than men of ever being designated authors, even after adjusting for several variables. In the overall ever-author rate, women make up just 12.15% of the total, while males make up 21.17% displayed in Figure 5. This difference is evident.

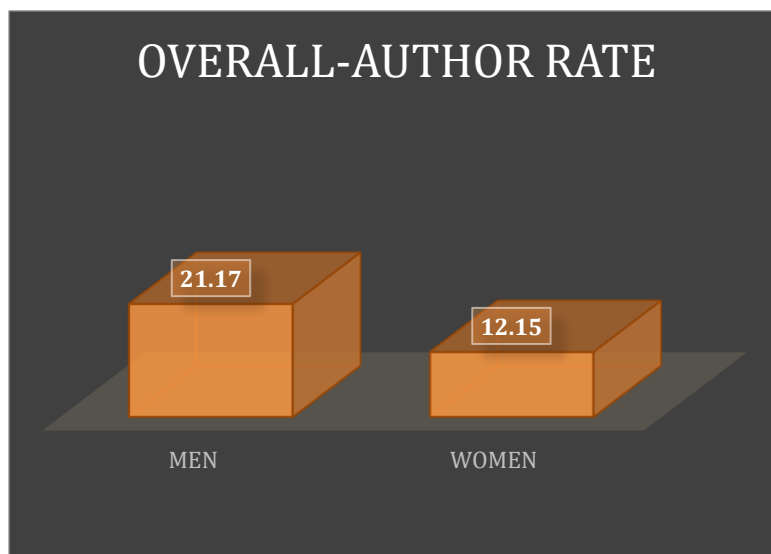
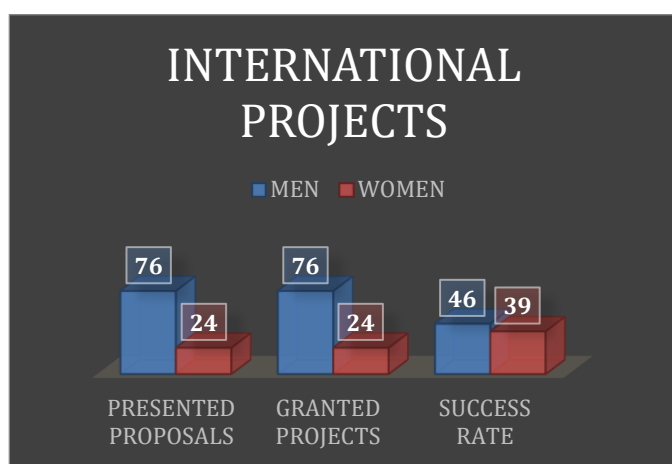


Figure 5

These results show a distinct trend of undervaluation and exclusion of women writers in science. These differences have wider ramifications for fairness and representation in the scientific community than are just apparent to the individual. Ross, M.B., Glennon, (B.M., Murciano-Goroff, R. *et al*) A cycle of gender inequality inside academia and outside is perpetuated by unequal writing opportunities that impede women's career progress and professional recognition. Cooperation is needed to confront and eliminate pre-existing prejudices in credit allocation procedures to address these discrepancies.

Yet another, exploration was undertaken by Hernández-Martín, E., Calle, F., Dueñas, J.C. *et al.* (2019), where they conducted a study on the notable disparities in the involvement of female researchers at Universidad Politécnica de Madrid (UPM) between 2006 and 2016. For both national and foreign initiatives, the average percentage of women in submitted bids was 21%.

The average percentage for projects that were authorized was 19% for national projects and 28% for overseas initiatives. 39% of projects granted to women and 46% of projects to men were successful. The percentage of female project leaders in Other Technologies grew from 24% in



2012 to 34% in 2016. Female participation in patents rose from 7% in 2008 to 19% overall in 2016, with a notable rise in ICTs from 18% to 36% in the same year. By contrast, the lowest average percentage of female patent applicants was found in the Industrial Technologies sector. Through this, investigation we, could see the statistical difference in the international and national projects provided to men and women from the year 2006-2016.

In Figure 6, we can see that even though both men and women provide the same number of projects, the gap between the success rates is very significant. The success rate of women in projects is relatively lower than that of men, and this could be because of various reasons. Similarly, national projects were also assigned to both genders, but we can see a wide disparity between assignments of the projects in *the figure 7*.

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In Figure 7, we can see that the rate of granted projects for women is very low compared to men. This is again a blow showcase of the wide gap between the assertion of research between men and women. This graph makes us aware of the negligence and oppression that women face in the field of research and innovation.

Figure: 7

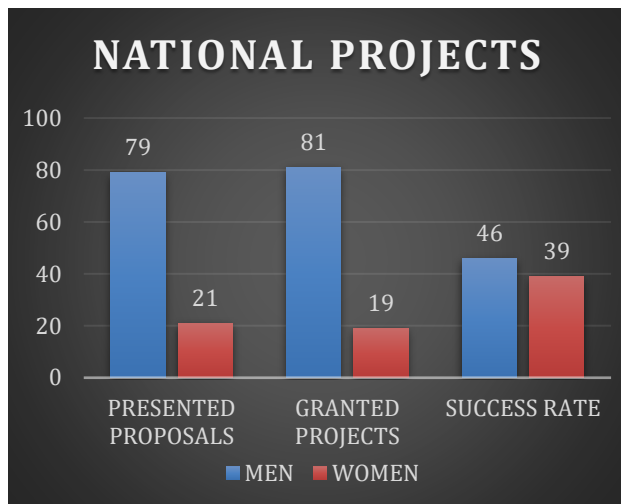
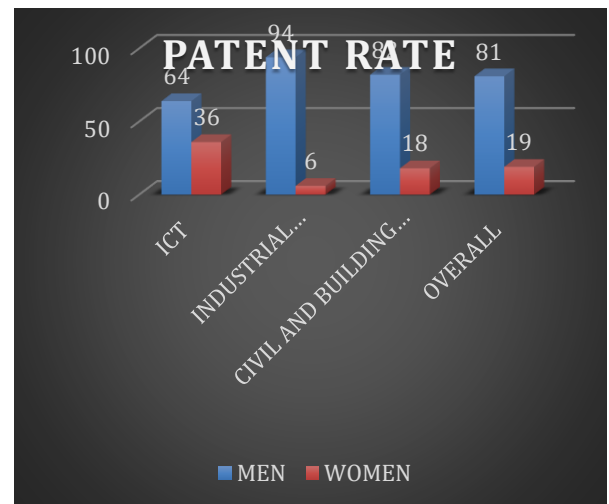


Figure 8



In figure 8, we can analyse the distinct difference between the patent received by both genders, in the different sectors. A wide disparity can be seen in the field of industrial technology with only 6% of women receiving patents

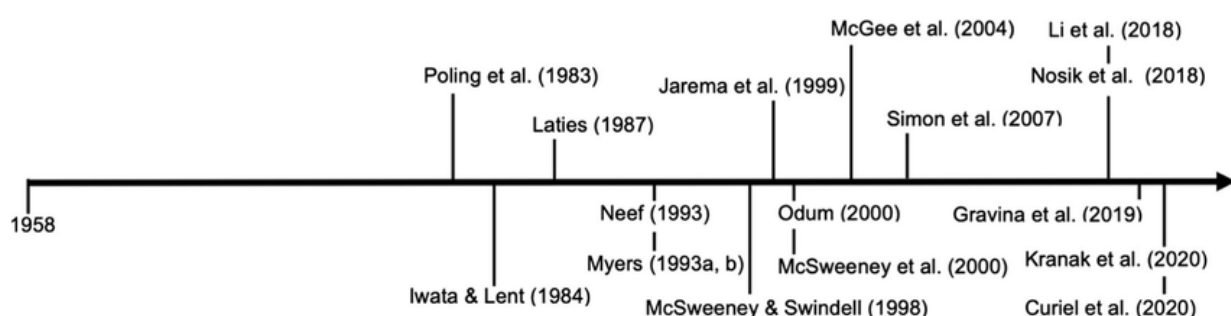
When, we go through the overall, data we can see that women in the research field are yet underrepresented and as the paper suggests the gender gap in the patent duly reflects the gender inequality and underutilization of female innovation capabilities.

Women in Behavioural Sciences

Women are now more frequently involved in behavior analytic research, according to recent statistics. The representation of women on editorial boards and as writers in behavior-analytic publications has improved. Women are contributing increasingly to single-author publications, yet males still publish the majority of them. Encouraging women to participate in research is essential to improving the quantity and Caliber of science. The significant and deserving contributions made by women to behavior-analytic scholarship are noteworthy. For behavior analysis to advance further, women behavior analysts must be empowered and mentored.

A seminal paper by Rotta, Katarina & Li, Anita & Curiel, Emily & Curiel, Hugo & Poling, Alan. (2021) also presents a timeline of articles that were involved in the analysis and quantifying the participation of women in the field of behavioural analysis. This timeline provides us with an insight into the works and how these have made the base of the previous work for future explorations.

Figure 9



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A chronology of research on women's involvement in behaviour sciences which presents the data from 1958 through 2020, the studies (author, year) are shown chronologically. The Journal of the Experimental Analysis of Behaviour was founded in 1958, marking the start of the chronology. Hence, we can see the series of work done down the lane concerning the status of women. And many revelations were made with time. We have undertaken the recent papers in the sequence to review.

With an emphasis on age and job advancement, Melissa Nosik et al. (2018) conducted a comprehensive investigation examining women's participation in behavior analysis. Their thorough investigation covered a wide range of topics, including positions of leadership in businesses, speaking engagements, editorial responsibilities, publishing patterns, academic appointments, and the frequency of Board-Certified Behavior Analysts. The results provided a varied image: women were more prevalent in early career milestones such as the acquisition of a certification and faculty hiring, but less so in later phases of the career, such as becoming an ABAI fellow. Even yet, the researchers noted significant progress made by women in the integration and advancement of behavior analysis despite these apparent inequalities.

Moving forward we undertook an article by Li, A., Curiel, H., Pritchard, J., & Poling, A. (2018). Where they explored that the women were more likely to participate in behavior-analytic publications from 2014 to 2017, according to an analysis of article authorship and editorial board membership for seven of these journals, they are, BAP Behavior Analysis in Practice, BARP Behavior Analysis: Research and Practice, JABA Journal of Applied Behavior Analysis, JEAB Journal of the Experimental Analysis of Behavior, TPR The Psychological Record, TAVB The Analysis of Verbal Behavior; TBA The Behavior Analysis. With a mean of 3.6% across journals, the proportion of papers written by women varied from 0.4% in JABA to 15.2% in TBA. Across the seven publications, males produced four times as many single-author articles (115) as women (28) did. With a mean of 37.7% among journals, the proportion of female editorial board members varied from 10.5% in TBA to 58.3% in TAVB. While the percentages of male and female editors were about similar in BAP, BARP, and JABA, the percentage of female editors was higher in TAVB (58.3%).

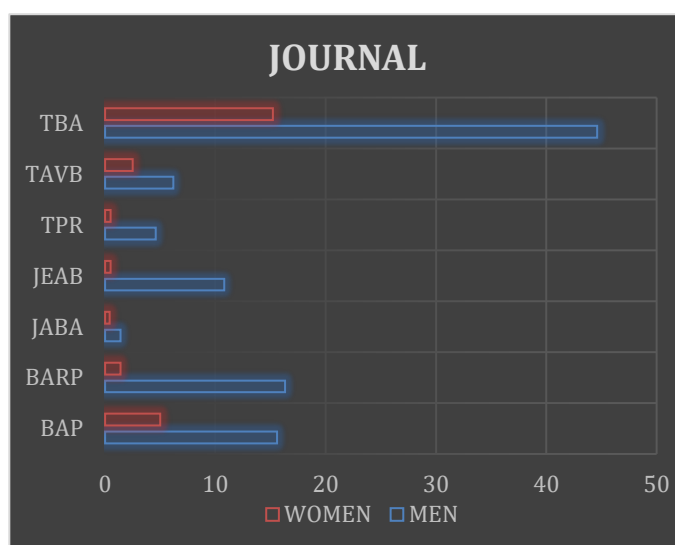


Figure 10

Li, A., Curiel, H., Pritchard, J., & Poling, A. (2018). Women's engagement in behavior analytic research has significantly increased the article states. Notwithstanding the advancements, women, LGBTQ people, and members of other racial and ethnic groups continue to face obstacles. The writers stress how crucial it is to help all of your coworkers and keep working to guarantee that everyone has an equal chance at success.

To improve to the quantity and Caliber of science, efforts to encourage women to participate in research are essential. The significant and admirable contributions made by women to behavior-analytic scholarship underscore the necessity of continued mentoring and empowerment in the discipline.

An expanded and updated examination of women's involvement in the Journal of Organizational Behavior Management may be found in the work by Gravina, Sleiman, and Matey (2019). The

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research looked at several factors, such as the proportion of female authors overall, female first authors, female authors as sole proprietors, female authors in empirical articles, male-only, female-only, and male-and-female collaborations, the percentage of female members in the current editorial board, and the percentage of female associate editors. The study also listed the top ten women authors in the Journal of Organizational Behavior Management through publication. The results showed that women's participation increased steadily on the majority of measures, underscoring the significance of expanding women's and other underrepresented groups' engagement in behavior analysis. The report recommends paying more emphasis to improving inclusion and diversity in the industry.

An updated analysis of authorship patterns in JABA with an emphasis on gender representation was carried out in 2020 by Michael Kranak et al. They discovered that during the previous ten years, the proportion of female writers had significantly increased, with women accounting for 70% of first authors in 2019. In four of the previous six years, there were more female senior writers than male senior authors, despite the percentages of female senior authors being lower. Although the survey indicates that women are well represented among JABA authors, it is still unknown how many women write for the publication. The authors emphasized the importance of addressing women's underrepresentation in applied behavior analysis at higher levels and backed earlier research suggestions to boost the number of women working in the area.

A thorough summary of women's participation in behavior analysis can be found in the publication "Participation of Women in Behavior Analysis: A Review of the Literature". It talks about the historical background of women's involvement in the profession, stressing the difficulties women have experienced and the advancements they have achieved in recent years. This study gives updated data sets on women's engagement in behavior-analytic journals, examines publications that quantify women's participation, and makes recommendations for future research. The writers address a range of subjects about women's involvement in behavior analysis and examine the gender of writers who have written on women in the field. They stress the significance of tackling issues of diversity, equity, and inclusion in addition to raising the proportion of women in leadership positions. The study promotes tactics to assist and empower women in behavior analysis while also recognizing the accomplishments of well-known female behavior analysts. In summary, the study underscores the noteworthy progress made by women in the field of behavior analysis, while also acknowledging the persistent obstacles and the necessity of continuous endeavours to achieve gender parity in the discipline. The figures about women's participation in several behavior-analytic journals depict both advancements and unmet obstacles. 70% of initial authors in the Journal of Applied Behavior Analysis (JABA) in 2019 were women, representing a sizable majority. Furthermore, there have been more female senior writers than male senior authors in 4 of the last 6 years, suggesting a considerable presence of women in high posts within the publication. The list of the ten most published women in the Journal of Organizational Behavior Management (JOBM) indicates that there is a greater acceptance and engagement of female authors. A noteworthy pattern showing a substantial prevalence of female contributors was shown by the Analysis of Verbal Behavior (TAVB), where publications with at least one female author outnumbered those with at least one male author. While there is room for improvement in gender representation, the gains in the percentage of female editorial board members in Personnel Psychology were less pronounced than in other publications. Fascinatingly, women's participation at higher levels in the Experimental Analysis of Behavior (EAB) was observed to be higher than in JABA, indicating differences in gender representation in various subfields. In behavior-analytic journals, the proportion of female writers and editors has increased significantly over the past forty years, indicating a move in the direction of gender equality. Efforts to promote gender diversity and inclusiveness are still necessary, as women are still underrepresented as conference presenters compared to their total representation in the subject.

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The passage that follows offers a thoughtful examination of women's growing participation in behavior-analytic research, highlighting advancements as well as ongoing difficulties. According to recent statistics, the number of women serving on editorial boards and as authors in behavior-analytic publications is increasing. Even if the number of women authoring single-author books is rising, men still write most of these works. Promoting women's involvement in research is essential to increasing the amount and calibre of scientific publications. Women have made noteworthy and admirable contributions to the field of behavior analysis, underscoring the need to support and guide female behavior analysts. The study on women's participation in behavior analysis from 1958 to 2020 is compiled chronologically in the publication by Rotta et al. (2021). This chronology illustrates significant discoveries made throughout time and offers insightful information about how this field of study has evolved. Furthermore, a thorough study on women's involvement in behavior analysis was carried out by Melissa Nosik et al. (2018), who emphasized the importance of age and career advancement. Women are overrepresented in early career milestones but underrepresented in later phases, such as becoming an ABAI fellow, according to their analysis, which also indicated inequalities in representation across different career stages. It was accepted that women had made tremendous progress in the area despite these disparities. Li et al.'s (2018) further analysis looked at women's participation in behavior analytic research across many journals and found differences in representation across them. Even if the percentage of female authors has risen dramatically in recent years, issues like those encountered by women, LGBTQ people, and people from various racial and ethnic groups continue to exist. The field must advance via initiatives that support diversity, equity, and inclusion as well as ongoing mentorship and empowerment. Women's engagement in the *Journal of Organizational Behavior Management* was examined by Gravina, Sleiman, and Matey (2019), who built on this analysis by showing a consistent rise in participation across a range of metrics. On the other hand, it was stressed how important it is to continue emphasizing diversity and inclusion in the sector. Furthermore, the number of female writers in *JABA* has significantly increased, according to Michael Kranak et al.'s (2020) revised examination of authorship trends. Despite this, there are still issues with women's participation in applied behavior analysis at higher levels. In broad terms, the study presented highlights the need for continuous endeavours to foster gender diversity and inclusivity in behaviour analysis, honouring the noteworthy accomplishments of women while also recognizing the necessity of sustained backing and advocacy for gender parity in the field.

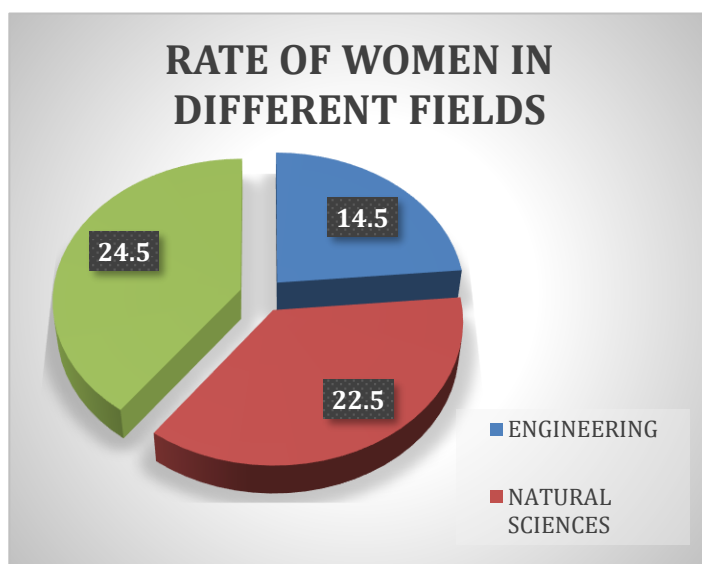
Women in India: Research Status Snapshot

Women's standing in Indian research has been gradually but distinctly changing. Due to societal, cultural, and financial limitations, women have historically encountered considerable obstacles while trying to pursue jobs in research and obtaining an education. Nonetheless, there has been a noticeable improvement in the engagement of women in research across a variety of sectors as a result of deliberate attempts to overcome these discrepancies. Government programs that expressly target women researchers, such as fellowships and scholarships, have been crucial in promoting their participation in research and academia. Availing more facilities from the government, still women continue to be underrepresented in positions of leadership and encounter barriers when trying to get money, resources, and chances for professional growth. The position of women in Indian research may yet improve with continued dedication from stakeholders at all levels, such as politicians, educational institutions, and research groups.

We have, also studied a paper, which emphasizes the vital role that women play in the growth of the country while focusing on the complex road that leads to women's empowerment in India. It talks about how women's restricted possibilities and gender inequality have been shaped by historical and cultural elements in Indian culture. Notwithstanding ingrained attitudes and discriminatory practices, there has been a change in the understanding of the critical role that

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women play in the advancement of their country. The study highlights the advantages of women's empowerment for sustained national development, pointing to improved communal well-being, reduced poverty, and higher economic activity. The report also discusses the difficulties and barriers that women encounter, such as gender stereotypes, restricted opportunities for education and work, and violence against women based on their gender. Highlighted are the achievements made by women in advancing economic empowerment, increasing rates of education and literacy, and enhancing healthcare results. Overall, the paper underscores the significance of investing in women's education, skill development, and creating enabling environments that honour and acknowledges women's contributions. It calls for continued dedication and cooperation from all stakeholders to advance towards inclusive growth, sustainable development, and a more equitable society in India. (S et al., 2023). According to (*Women in Science*, 2022) the percentage of female researchers rose from 13.9% in 2015 to 18.7% in 2018. Women participate in the workforce at a good rate up until the post-graduate level, after which there is a decline. 14.5 percent of women work in engineering. Females in Natural Science (22.5%) < Females in Health (24.5%).



In this *figure 9*, the data given by women in science is displayed. It showcases the rate of women advancement in different fields in context of India. We can distinctly see that the rate of women in engineering field is relatively low compared to the other two fields. Thus, we can say that the science field in India is also a subject to gender disparity. Also, over the past In Figure 9, the data given by women in science is displayed. It showcases the rate of women's advancement in different fields in the context of India. We can distinctly see that the rate of women in the engineering

field is relatively low compared to the other two fields. Thus, we can say that the science field in India is also subject to gender disparity. Also, over the past two decades, women's involvement in scientific research has increased in India. According to data released by the Department of Science and Technology (DST), women made up 28% of participants in 2018-2019 in extramural Research Development (R&D) projects, an increase from 13% in 2000-2001. From 232 in 2000-2001 to 941 in 2016-2017, the proportion of female primary investigators in R&D increased by more than four times. Additionally, according to the data on women in science, India is said to have 16.6 percent of female researchers, who are directly, engaged in Research and Development activities. However, the women researchers face underrepresentation, because of society being deeply entrenched in the domination of patriarchy.

Objective: 3

To examine factors influencing women's success in multifaceted research careers

Challenges faced by Women:

Unfair Acknowledgment of Contributions:

Women are underrepresented in the workforce and are particularly unlikely to get acknowledged for important undertakings. Because women's contributions are frequently disregarded or undervalued, they receive less credit. For instance, initially unacknowledged, Rosalind Franklin played a crucial role in the discovery of the DNA structure. Franklin was unfairly denied

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authorship on the original Crick and Watson article, as the scientific world only subsequently discovered. Disparities in Watson's description of the finding led to Franklin's contribution being recognized posthumously. The Rosalind Franklin case brings to light the problem of women's contributions to science being underappreciated. How many other women's accomplishments have gone unnoticed in comparable situations is a question that Franklin's narrative highlights. The citation emphasizes how crucial it is to acknowledge and provide credit for women's contributions to science to prevent deterring the next investigators.

Women in India: Research Status Snapshot

Early Discouragement:

Junior researchers may experience discouragement, which might hinder the advancement of their careers. High-impact researchers may be discouraged from pursuing science if they witness the discouragement of early-stage researchers such as Rosalind Franklin. Again, the reference of Franklin is used, where we can see that, in science as well as in diverse trajectories, the women face discouragement and don't feel motivated to work beyond it. This not only results in a productivity block but also puts down the upcoming researchers, who deliberately want to work in the field of innovation.

Lack of Voice and Advocacy:

Women may need to advocate for themselves to be included in authorship. A lack of voice disproportionately affects women, minorities, and foreign-born scientists. Authorship of research articles is not only a question of acknowledgment in academic and scientific circles, but it also plays a critical role in determining funding prospects, career promotion, and general exposure within the scientific community. But being a published author is not always easy, and it is frequently rife with institutionalized discrimination and prejudice that disproportionately affects certain groups, especially women, minorities, and scientists who are foreign-born. The widespread gender prejudice present in academic institutions and research environments is one of the main obstacles experienced by women in the field of academia. Academics have indicated that, despite their significant contributions, women are less likely to be listed as authors of academic articles. Often called the "leaky pipeline," this issue refers to the fact that women are more likely to be passed up for authoring opportunities, have their contributions downplayed, or have them credited to male colleagues.

Unclear Authorship Rules:

Authorship rules, often determined by senior researchers (predominantly men), can lead to disagreements and favouritism. Authorship guidelines, which are usually prescribed by senior researchers—most of whom are men—can lead to conflicts and bias in academic settings. Because of this hierarchical structure, people in positions of authority can frequently have excessive influence over decisions about authorship, which may marginalize the contributions of foreign-born scientists, women, or members of minority groups. Credit allocation for research activities can give rise to disagreements that might cause conflicts and damage professional relationships. Favouritism also has the potential to exacerbate already-existing disparities and impede the progress of underrepresented scholars. It can be directed against specific people or groups. To tackle these problems, fair and open authorship standards are needed, along with impartial dispute resolution procedures. Furthermore, encouraging inclusive research settings and diversifying decision-makers might help lessen the negative effects of biased authoring practices.

Impact on Career Advancement:

Exclusion from authorship can harm career advancement, job opportunities, and grant funding. Women, especially women of colour, are affected by faculty decisions on authorship.

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Disagreements over authorship can be bitter and impact career advancement. Refusing to be an author has a major negative impact on grant funding opportunities, employment chances, and professional advancement. Women have disproportionate impediments to acknowledgment and bear the burden of faculty choices on authorship, especially women of colour. Authorship disputes can escalate into bitter arguments that impede professional growth and uphold structural injustices. These conflicts not only impede career advancement but also worsen already-existing inequalities, reducing chances for marginalized communities in higher education. Transparent authorship standards, fair decision-making procedures, and proactive steps to encourage diversity and inclusion in research settings are necessary to address these problems.

Trauma and Emotional Impact:

Experiences of exclusion from authorship can be traumatic and emotionally distressing for women in research careers. Instances of lack of credit and authorship can be perceived as disrespectful and damaging to professional careers. Not only are instances of rejection of authorship and credit impolite, but they also seriously impair one's career path. These marginalizing behaviours undermine self-esteem, reduce acknowledgment, and impede professional growth. Additionally, they uphold prejudices and systematic injustices in academic settings. It is impossible to overestimate the emotional toll that such exclusion has on researchers since it affects not just the diversity and inclusion of the scientific community as a whole but also individual individuals. To overcome these obstacles, unified efforts are needed to advance fair authorship procedures and provide welcoming environments for all researchers.

Gender Stereotypes in Research

Stereotypes and gender prejudice are ubiquitous in many facets of society, including the research sector, where they have a substantial influence on the possibilities and experiences that people are afforded depending on their gender. Differences in the research field nevertheless exist despite advances in attempts to promote gender equality; these differences impact career development, representation, and professional recognition. This will offer a thorough analysis of gender prejudice and stereotypes in the research sector, highlighting the widespread prevalence of these problems through the use of pertinent studies and literature.

Research Disparities by Gender

There is ample evidence in many fields of study on the gender gap in research, with women persistently underrepresented in many facets of academic and scientific inquiry. Women only make up 28.8% of authors in high-impact scientific journals, according to research published in *Nature*. This indicates a sizable gender disparity in authorship representation (Larivière et al., 2013). In research institutes, women are also underrepresented in leadership roles; males occupy most tenured academic and administrative posts (West et al., 2016).

Many factors contribute to the underrepresentation of women in research, such as institutional hurdles, preconceptions, and systematic biases. According to Moss-Racusin et al. (2012), gender prejudice is evident in recruiting procedures, promotion choices, and resource allocation, which frequently leads to the marginalization of women and impedes their professional progress. Perceptions of women's competence, commitment, and aptitude for leadership roles are shaped by stereotypes about their responsibilities and skills, which serve to reinforce these biases (Phelan et al., 2008).

Gender Bias's Effect on Career Advancement

The research industry's gender bias has a significant impact on career advancement and professional achievement. Research has repeatedly demonstrated that, in comparison to their male colleagues, women have more challenges when trying to get financing for their studies,

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publish in esteemed publications, and assume leadership positions (Shen, 2013). Due to the lack of options for progression, women are more likely to quit academia or stay in junior jobs, a situation known as the "leaky pipeline" (Xie & Shauman, 2003).

In addition, gender prejudice causes psychological discomfort and impostor syndrome by undermining women's self-esteem and feelings of community in academic environments (Clancy et al., 2017). According to Madera et al. (2009), the combined impacts of discrimination and micro aggressions undermine women's self-confidence and discourage them from pursuing ambitious professional ambitions. As a result, women's varied views and skills are lost to the research sector, which hinders innovation and advances scientific inquiry

Researcher Stereotypes and Perceptions of Women

Women's experiences in the research business are significantly shaped by stereotypes about their talents and interests. According to traditional gender roles, males are seen as more capable and ambitious in professional settings, while women are better suited for tasks involving caring and caregiving (Eagly & Karau, 2002). Research has shown that these assumptions perpetuate gender gaps by introducing unconscious biases that affect hiring choices, promotion criteria, and workplace dynamics (Heilman, 2012). (Smith et al., 2015).

Internalized stereotypes have an impact on women's self-perceptions and job goals in addition to external prejudices. According to Ceci et al. (2009), women who internalize gender norms may minimize their accomplishments, undervalue their skills, or choose to avoid difficult professional choices for themselves. Women in research are subjected to a self-perpetuating cycle of limitation and constraint as a result of this internalized self-doubt, which intensifies the effects of external gender prejudice (Budden et al., 2008).

Objective: 4

To analyze the strategies for overcoming gender disparities in Multidisciplinary Research

Overcoming Stereotypes and Gender Bias in Research

An interdisciplinary strategy that focuses on structural injustices and encourages cultural transformation is needed to combat gender prejudice and stereotypes in the research sector. Blind review procedures and diversity training for decision-makers are two proactive steps that organizations could take to reduce prejudice in funding, hiring, and promotion choices (Moss-Racusin et al., 2014). To ensure that women are fairly recognized for their research contributions, transparent standards for authorship and advancement can help lessen the effects of biased assessments and favouritism (Symonds et al., 2006).

Additionally, early in the academic pipeline, interventions targeted at boosting girls' interest and involvement in STEM disciplines should be implemented to dispel prejudices and advance gender equality (Cheryan et al., 2017). Programs for sponsorship and mentoring can offer crucial assistance and direction to women negotiating the difficulties of academics, assisting them in overcoming obstacles and realizing their full potential (Ely et al., 2011). Fostering gender equity in research requires establishing welcoming, encouraging work cultures where a range of viewpoints are acknowledged and supported (Diekman et al., 2010).

Stereotypes and gender prejudice still hinder women's progress in the research field by maintaining gaps in opportunity, recognition, and representation. It will need a coordinated effort by individuals, organizations, and politicians to address these systemic difficulties to promote gender equity in research and fight deeply embedded prejudices. The research community can foster a more welcoming and equitable atmosphere where all scientists may flourish and advance science by recognizing the widespread presence of gender prejudice and taking aggressive steps to rectify it.

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Work-life balance Issues and Societal Expectations

Women play a diverse role in society, and hence the societal expectations towards women are seen to be very different from those of a man. A woman is expected to have a better balance between work and personal life. Society places very unrealistic expectations, which not only act as a hurdle but also discourage women from having a life outside. And when we see in the field of research it is said that women are unproductive but, when it was analysed deeply it was seen that women are highly productive, but the unwelcoming work environment, having greater family responsibilities, and mostly they face gender discrimination by the seniorities and the male population in the work. This doesn't allow them to move forward in the field of research, as we can see from the data above how women are not given the opportunities that they deserve, or seek. Because of this they either abandon or get stuck in the position. This gives us a view of how work and personal life along with society acts as a hindrance in career advancement, as well as in authorship, hence, we could see that even though women wrote more. However, their works were patent less, and most of the time, they were denied authorship. Because of these factors, many women researchers are blurred out from the history of the research field and we are not even aware of it today. Maybe because they were excluded and denied of their attributions and contributions despite the hard work put in by them.

Empowering Women in Diverse Research Paths

Advances in gender equality have been made in several professions, including research occupations, in recent decades. Even if there are still difficulties, the importance of many viewpoints and the necessity of inclusive research environments are becoming more widely acknowledged. Women are increasingly discovering chances across a variety of diverse professional pathways, despite traditionally facing challenges to admission and progress in the field of research. This essay examines the options open to women in diverse research jobs, looking at developments, obstacles, and tactics to support gender diversity in the field.

Improvements in Women's Opportunities

Policy actions and increases in educational attainment have given women more opportunities to pursue jobs in multidisciplinary research. Women are now more empowered to seek advanced degrees in a variety of professions because of increased access to higher education, which has given them the knowledge and experience needed to succeed in research positions (UNESCO, 2021). Additionally, programs and policies targeted at lowering obstacles and bias in academic and scientific contexts have been implemented as a result of efforts supporting gender diversity and inclusion in research (European Commission, 2020).

Women now have more opportunities to contribute their interdisciplinary experience across academic boundaries because of the growth of interdisciplinary research. Women have the opportunity to make use of their varied skill sets and viewpoints through collaborative research initiatives that incorporate ideas from other domains, fostering innovation and tackling difficult social issues (National Academy of Sciences, 2018). Furthermore, women are now able to pursue research jobs at academic institutions as well as private sector companies thanks to the rising emphasis on industry-academic alliances, which promotes collaboration and knowledge sharing (McKinsey & Company, 2018).

Obstacles & Difficulties

Notwithstanding progress, women continue to encounter obstacles and difficulties while pursuing diverse jobs in research. Disparities in representation and recognition are sustained by the persistence of gender prejudice and preconceptions in recruiting, financing, and promotion choices (Moss-Racusin et al., 2012). Compared to their male colleagues, women are more likely

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to be underrepresented in leadership roles and to encounter more barriers when trying to obtain financing for their research and publication opportunities (Shen, 2013).

Women who want to multidisciplinary research professions encounter additional obstacles due to work-life balance concerns. Research and academic expectations may be quite demanding, including long hours and lots of travel, which might interfere with other personal commitments and caregiving duties (Mason et al., 2013). These issues are made worse by a lack of institutional support and policies that are family-friendly, which prevents women from advancing in their research careers and from participating fully in them (Association for Women in Science, 2020).

In addition, women's confidence and sense of belonging in research contexts can be undermined by unconscious prejudice and stereotype threat, which can result in impostor syndrome and self-doubt (Clancy et al., 2017). Women's professional growth and career progress can also be hampered by the lack of female role models and mentors in particular sectors, depriving them of vital support and advice (Diekman et al., 2010). Furthermore, early in the academic pipeline, interventions targeted at promoting girls' interest and involvement in STEM subjects should be implemented to combat gender prejudice and stereotypes (Cheryan et al., 2017).

Hence, advances in schooling, regulatory efforts, and collaborative research methods have created several opportunities for women to pursue careers in multidisciplinary research in recent years. Work-life balance concerns, institutional support gaps, and gender prejudice are still present, though. To tackle these obstacles, institutions, decision-makers, and people must work together to advance gender parity and create welcoming research settings. Through the implementation of proactive measures like mentoring programs, family-friendly regulations, and attempts to fight gender prejudice and preconceptions, the research sector may foster an environment that allows women to flourish and effectively offer their distinct views and knowledge. In the end, encouraging gender diversity in multidisciplinary research professions is critical for encouraging creativity and expanding scientific knowledge in addition to attaining equity and inclusion.

Fostering Women's Support in Research

Establishing an atmosphere that encourages women to flourish and achieve professional success is essential to promoting women's support in research. Several tactics can be used to accomplish this, such as creating mentorship programs, showcasing accomplished women as role models, putting diversity and inclusion initiatives into action, encouraging the formation of employee resource groups, providing flexible work schedules, and collaborating with outside networks and organizations that support women in business. Through the use of mentoring programs, successful women inside a company may be paired with up-and-coming female professionals, offering advice, encouragement, and insightful commentary to assist women advance in their professions. By showcasing female leaders in internal newsletters, corporate announcements, and special events, we can honour their accomplishments and encourage others to go higher. This will also help them to gain recognition in the field of research.

Initiatives promoting diversity and inclusion can foster an atmosphere in which women have equal possibilities for job progression. Fostering the establishment of employee resource groups that highlight women in leadership positions gives women in the company access to a network of support. Giving employees flexible work options, such as remote work or adjustable hours, demonstrates to employers how important it is for women to manage their home and professional lives. Women's voices and accomplishments may be amplified by collaborating with outside networks and organizations that support women in business and by sharing success stories. This benefits not just the individual women but also the organization as a whole and society at large. Organizations can unleash the enormous potential of women by creating an atmosphere that supports them, which will boost creativity, output, and general success.

Voices of Leading Women Researchers

Distinguished female investigators have contributed priceless autobiographies that illuminate their experiences, obstacles, and victories in the field of research. The tenacity, grit, and contributions made by women to the advancement of scientific knowledge are powerfully demonstrated by these tales. A few noteworthy examples are as follows:

Dr. Tessy Thomas: Dr. Tessy Thomas, dubbed the "Missile Woman of India," is the Director General of Aeronautical Systems and the former Project Director of the Defence Research and Development Organization's Agni-IV missile (DRDO). She is praised for her contributions to India's defence capabilities and was instrumental in the country's development of several ballistic missiles. For many aspirational Indian women scientists, Dr. Tessy Thomas serves as an inspiration and a symbol of distinction in the STEM areas. **Dr. Soumya Swaminathan:** Renowned Indian physician and clinical scientist Dr. Soumya Swaminathan is an expert in HIV and TB. She has held various important roles, such as Chief Scientist at the World Health Organization (WHO) and Director-General of the Indian Council of Medical Research (ICMR). Global health policy has benefited greatly from Dr. Swaminathan's research, especially in the fields of infectious diseases and public health. **Rosalind Franklin:** Rosalind Franklin, a trailblazing molecular biologist, was instrumental in determining the DNA molecule's structure. Franklin overcame severe gender prejudice and career setbacks to produce ground-breaking research that established the principles of contemporary genetics. Her experience serves as a reminder of the value of tenacity and the influence of women's contributions to scientific advancement (Maddox, 2002). **Mae C. Jemison:** The first woman of African American descent to fly in space, Dr. Mae C. Jemison has been open about her experiences as a woman of colour in the STEM fields. Jemison promotes more chances for disadvantaged groups in STEM and emphasizes the value of diversity and inclusion in scientific research via her personal tales (Jemison, 2019). **Jane Goodall:** Renowned primatologist and conservationist Dr. Jane Goodall has talked about her life-changing experience of researching chimpanzees in Tanzania's Gombe Stream National Park. Future generations of scientists will continue to draw inspiration from Goodall's groundbreaking study, which transformed our knowledge of animal behavior. Her experience serves as a powerful example of the value of ardour, curiosity, and persistence in scientific research (Goodall, 1999). **Sylvia Earle:** A renowned oceanographer and marine scientist, Dr. Sylvia Earle has devoted her career to studying and preserving the world's seas. Earle has contributed to the public's understanding of the value of ocean conservation and the pressing need to address environmental problems via her own experiences diving to the bottom of the ocean. Her narrative is a potent call to action for protecting the most valuable ecosystems in our world (Earle, 2014). **May-Britt Moser:** The neuroscientist, who won the Nobel Prize, Dr. May-Britt Moser, has recounted her quest to understand the inner workings of the brain. Our knowledge of memory and cognition has improved as a result of Moser's ground-breaking studies on spatial navigation. Her introspective thoughts emphasize the excitement of scientific discovery and the value of teamwork in advancing our collective understanding (Moser, 2014).

These first-hand accounts provide insightful information about the struggles, victories, and achievements made by women working in the field of research. Prominent female scientists encourage more diversity, equity, and inclusion in the scientific community by sharing their personal stories and inspiring the next generation. Through this information, we could see that there are eminent women personalities, who have embarked on the field of research and have done a splendid job. But these personalities have also shared their fair share of struggles to reach the peak in this gender-prejudiced world of research.

Conclusion

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The study addresses prejudice and gender differences in the realm of innovation, with a special emphasis on women's involvement in multidisciplinary research. To examine how many women and men participate in different study domains, it examines earlier studies. The study, which examines the gender distribution among writers for the American Psychological Association (APA) from 1963 to 2016, demonstrates how women's representation has significantly increased over six decades, from 12% in the 1960s to nearly parity in the 2010s. In APA papers, women are shown to be overrepresented as initial authors but underrepresented as final writers.

The data shows differences in the proportion of women researchers in various fields, with women contributing 17.2% in software engineering and 12% in Nanoscience and technology, respectively. Less than 30% of writers in science writing worldwide are women, notwithstanding encouraging increases in psychology research authorships and APA publications. The study highlights how systemic problems that lead to gender differences in scientific authorship and other research areas must be addressed.

Additionally, the study examines the obstacles and prospects faced by women in many research professions, emphasizing the need to advocate for gender parity and facilitate women's progression in research domains. It talks about the challenges women in STEM fields experience in academia, such as their underrepresentation in leadership positions and peer-reviewed research. To promote diversity, equity, and inclusion in research settings, it is advised to employ strategies like self-care, mentorship, and inclusive hiring practices as a means of overcoming these obstacles.

In summary, the study emphasizes how important it is to recognize and overcome gender biases and hurdles in research to create a more welcoming and equal atmosphere for women pursuing diverse research careers

Empower Women in Research: Support Gender Equality Now

Innovation, creativity, and societal progression depend heavily on gender equality and the career success of women in research. Recognizing and removing the structural obstacles preventing women from participating fully and succeeding in these sectors is essential. We must work together at the individual, institutional, and social levels to enhance gender equality and women's scientific development. The first and most important thing to do is to confront and destroy gender preconceptions and prejudices that support inequality in research environments. This entails creating welcoming and encouraging situations where women are enabled to share their special skills and viewpoints and feel appreciated and respected. To help women in research succeed in their careers, we also need to aggressively encourage networking and mentoring programs that provide them with the direction, tools, and assistance they require. We also need to push for programs and regulations that support gender equality and remove structural obstacles in research institutes. This entails encouraging women to have equal chances in hiring, advancement, and leadership roles and making sure that assessment procedures are impartial and open. Furthermore, funding must be allocated to programs like outreach campaigns, fellowships, and scholarships that specifically target women in STEM (science, technology, engineering, and mathematics) disciplines.

To advance gender equality in scientific disciplines, education is also very important. We can foster a varied and inclusive pipeline of talent in research domains by encouraging girls to explore and follow their interests in STEM topics and confronting gender stereotypes from an early age. In the end, encouraging gender equality and helping women to pursue research careers is not only about being fair; it's also about utilizing our combined creative and scientific capacities to the fullest. Through collaborative efforts to establish research settings that are more egalitarian, inclusive, and supportive, we may unlock new prospects and propel significant progress toward a future where everyone is affluent and just.

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A final thought on the importance of diverse perspectives in driving innovations and progress in research industries.

Numerous points of view are extremely significant resources for promoting innovation and advancement in the research sectors. People with diverse identities, experiences, and origins offer a range of perspectives, ideas, and methods of problem-solving to the table. This diversity of viewpoints encourages cooperation, ignites creativity, and produces discoveries that would not have been feasible otherwise. Diverse viewpoints are especially important in research, where the objective is to discover new information and resolve difficult problems. They make it possible for academics to examine novel solutions that would have gone unnoticed, challenge presumptions, and see issues from several perspectives. Furthermore, diverse teams are better able to recognize and respond to the various demands and issue that society faces, which produces solutions that are more inclusive and have a greater effect.

In addition, welcoming diversity in the research sector fosters a culture of inclusion and belonging in which everyone is encouraged to share their special skills and viewpoints and feels appreciated and accepted for who they are. This in turn creates a more vibrant research community by drawing and keeping outstanding individuals from a variety of backgrounds. In the end, research industries may create new opportunities, spur innovation, and make significant strides toward resolving some of the most critical issues facing the planet by accepting a diversity of viewpoints. The ability of diversity to propel good change in research and beyond must be acknowledged and celebrated as we work toward a more fair and inclusive future.

Suggestions

As we have analysed the works done in the past, we can see that even though the number of participations from the female part of the population has increased over time, we also can't unseen the underrepresentation of women in the field of multifaceted research whether it is the scientific field or the field of behavioural sciences. The dominance of the male writers is extensively seen, even when we went through the interviews, we can see the way the women writers are neglected. For this proper support network, government policies should be undertaken. Also, a more inclusive and diverse environment should be created so, that more women could join the research field without any second thoughts. The contribution of the women is also be recognized and rewarded to encourage in them in research field.

Also, a few of the limitations could be addressed, since we have conducted a literature review, we could find almost few relevant works done in the Indian context, so, there's a scope for future studies to be conducted in this field so that a detailed study could be conducted on the status of the women researchers in the field of multifaceted research in an Indian context, this would help us to know the current development of the women researchers in the research fields and also help us to take initiatives for the better development of the world of research.

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