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Women’s Empowerment Initiatives in Brazilian Universities: Cases of Extension Programs to Promote Sustainable Development

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The recognition of the role played by women in society, politically, socially and also academically are increasingly being discussed, and means to achieve the female empowerment have been sought. The universities can positively contribute in that aspect, through the network of contacts with the community in an active way, adding these people and helping in the development of better fundamental conditions for empowerment of women. In this context, this paper aims to explore the complex role of Brazilian universities when it comes to the participation of women in science, including the promotion of the United Nations Fourth and Fifth Sustainable Development Goal. Understanding the several obstacles women face in science field, this study brings some new perspectives about university extension programs using the cases of the Girls in Science project and the Maternal-Child and Family Care Project, representing examples of actions or initiatives that seek to attract young women to careers in science and technology (S&T) and encourage those who have chosen these careers to persevere and assume themselves as protagonists in Brazilian's scientific and technological development.



1. Introduction



In Brazil, according to data from the Brazilian Institute of Geography and Statistics (IBGE) (2018a), since the 1990s, women have been predominating in education at all levels. In 2018, only 16.9% of women aged 25 or over had a higher education level; however, it is still higher than the percentage of men, being 13.5%. Even though women have higher educational level, this fact is not reflected in salary gains in the market.

For the last quarter of 2019, men earned, on average, 22% more than women. Among workers with higher education, the difference is even greater, reaching 38%. Among the management and executive positions of private companies, the difference was 29%, still totaling only 40% of the occupation of leadership positions. Nevertheless, the unemployment rate among women reached 13.1%, while among men it was 9.2%. This reality is also because women dismiss 95% more time than men on domestic duties, sacrificing their academic and professional life for a maternal culture (IBGE, 2018b). Although recent research indicates that women have been the majority at all levels of education in Brazil, including higher education, they receive a lower remuneration compared to men, even if they perform an activity identical to them (UNDP, 2019).

Therefore, the role of the universities is to increase the possibilities of employment for both men and women, so that gender differences in the job market become less pronounced at higher educational levels. However, as will be demonstrated in this paper, contacts that are partnerships, studies, policies, public investment or small initiatives inside the universities, are some of the ways to end the gender disparity.

Gender disparities cause challenges in achieving sustainable development. The empowerments of women, as well as the guarantee of the rights of all people, without exception, are fundamental elements for a fair legacy for future generations. Thus, the UN's Sustainable Development Goals, and the debate of “Girls in Science”, is reflected in efforts to guarantee more possibilities for women in society and in the labor market. Recognition of their rights and access to their own income are key elements in building a feeling of empowerment.

In this sense, this study aimed to discuss the extension projects carried out by Brazilian universities from the south of Brazil, namely Maternal-Child and Family Care Project (MCFCP) and The Girls in Science Project as initiatives of empowerment of women through the qualitative approach and bibliographic data collection. Summarizing, the cases represent the integration of the university with society as crucial to support the implementation of sustainable development, gender equality and, above all, access to education. Thus, the theme encompasses two of the Sustainable Development Goals (SDGs), namely: “SDG 4 - Ensure inclusive and equitable quality education and promote lifelong learning for all” and “SDG 5 - Achieve gender equality and empower all women and girls”.

2 Women's Empowerment and Sustainable Development



Empowerment can be defined as an active multi-dimensional process which helps the women to realize their identity and self esteem in all spheres of life in virtue of greater access to knowledge and resources, more autonomy in decision making, greater ability to plan their lives, more control over the circumstances which influence lives, and freedom from customs, beliefs, and practices (Kumar, 2017; Cornwall, 2016). Regarding gender equality, this involves elevating women through literacy, education, training and awareness (Alvarez, 2013).

Gender equality is included in the agenda of the Sustainable Development Goals as the fifth goal (UN, 2020). To conceptualize, the most frequently cited definition is "the development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Brundtland, 1985, p.1). In other words, for Van Bellen (2004, p.73), to live sustainably requires a standard of living "within the limits imposed by nature". It means the society in general need to think in favor of the interests of future generations while trying to satisfy current needs to have a planet capable of supporting human activities. And the Gender Equality is an essential goal to conquer a sustainable future for the planet since it collaborates for a better quality of life and social harmony (WEF, 2016).

That said, UN Women (2019) believes that education is the most efficient way to achieve the fifth Sustainable Development Goal, thus establishing synergy between the fourth and fifth goals. However, it is worth mentioning that the search for gender equality and quality education depends on the interdependent interaction of actions based on the economic, social and environmental dimensions.

Quality education promotes a sense of protagonism, identity, leadership power and, consequently, better positions in the labor market for women (Shahtalebi et al., 2011; Yousefy & Baratali, 2011). Higher education even has protective effects on health due to its impacts on the psychological and social processes of individuals (Chiu et al., 2019). And this transformative power of education, with wide-ranging effects across society, makes it the reason why it plays a significant role in gender equality.

In order for such ideals to be attained, university extension presents itself as a satisfactory alternative to create the interaction between higher education institutions and vulnerable communities. This connection bridge between theory and practice promotes an exchange with the environment in which both parts are inserted (Nogueira, 2000).



3 Methodology

The nature of the research of this study is qualitative. According to Cooper and Schindler (2011), a qualitative research includes a set of interpretive techniques that seek to understand a certain phenomenon through its description, decoding and translation. Regarding the research approach, the case study was applied as it is an empirical investigation that investigates the contemporary phenomenon in depth (Yin, 2015).

In addition, Creswell (2007) defines that when the researcher carries out the case study, he explores in depth a fact, an activity collecting detailed information using a variety of collection procedures. In this sense, this study chose three cases regarding two university extension projects in the south of Brazil, the Girls in Science project supported by the National Council for Scientific and Technological Development (CNPq) executed by the University of the South of Santa Catarina (UNISUL) and the Federal University of Rio Grande do SUL (UFRGS); and the Maternal-Child and Family Care Project supported by the University of the Extreme South of Santa Catarina (UNESC). Taking into account the action of universities in relation to projects supported by governmental initiative and by the initiative of the educational institution itself. So, as the data collection technique, this study used sources such as "search sites" and "social networks" of the study objects.

The analysis of the collected data used the typology defined by Yin (2015), the author suggests 5 analytical research techniques: 1) pattern combination; 2) construction of explanation; 3) time series analysis; 4) logical models; and 5) cross-synthesis of data. For this purpose, a standard combination analysis will be carried out in which the subjects of greatest congruence and relevance of the selected cases will be evaluated.

4 Results and Analysis

4.1 Gender Equality in Brazilian Universities



Brazil is a country with high levels of social inequality, and when filtered for the gender issue, this development challenge is still latent. According to the UNDP report (2010), inequality between men and women causes a loss of 63% of human development potential in Brazil.

However, despite the fact that higher education in Brazil is at a slow pace, in terms of promoting the empowerment of women within and outside the community of higher education, it is currently possible to highlight some initiatives carried out by universities that seek to make higher education more accessible to be entered by women (Dalouh& Soriano, 2017).

In this way, university extension programs can be conceptualized as a complement to traditional teaching, allowing students to expand their understanding during their academic journey, as well as involving the local community. In addition, it contributes to personal development and the formation of social values and critical emancipatory thinking. The aim is to empower the knowledge acquired and whose concern reflects in the adherence and articulation of public programs and policies that turn their attention to issues inherent, among others, to the empowerment of women (Casadei, 2016).

It is in this context that this study utilizes two initiatives to demonstrate the role of universities in promoting sustainable development through the education and empowerment of women, which are presented and reflected on in the following two sections.

4.2 The Maternal-Child and Family Care Program (MCFCP)



The Maternal-Child and Family Care Program aims to offer primary care to families through educational actions, support groups, physical activity (which includes aquatic physiotherapy and the use of the Pilates Method) and nutritional guidance through the “Healthy Kitchen” project. It also prepares women for childbirth and conduct home visits to families. The project's differential lies in the interdisciplinary work proposal, which includes professionals from the areas of Nursing, Physiotherapy, Nutrition and Psychology, besides the possible participation of other areas of health knowledge such as Dentistry, Pharmacy and Medicine. The team is made up of 3 professors, 4 scholarship students and 9 UNESC volunteer scholars (UNESC, 2019). This extension project at the University of the Extreme South of Santa Catarina (UNESC), seeks to promote the quality of the living environment of the families with babies and pregnant women, in addition to contributing to the centrality in the family (Amorim et al, 2018).

Also, the MCFCP program promotes health of pregnant women and babies in multidisciplinary care, within the biopsychosocial framework. For the university extension project to contribute to the training of more humane professionals, it is necessary to carry out actions and interventions on different fronts that contribute to the healthy development and adoption of positive practices mainly by pregnant women and the family.

Still, it is noteworthy that, in a country where the public health system fails to offer the minimum necessary assistance for pregnant women and / or women who are unable to afford the costs of care for their children, initiatives like this raise the position of women and are a good way to decrease gender inequality.

To that end, it is up to universities, increasingly to assume their role, aiming at sustainability and acting as key players of this new era, seeking and offering solutions whose common objective is the empowerment of women, reducing gender inequality.



4.3 The Girls in Science Project

Given the gender gap in Brazil, especially when referring to education in vulnerable social classes, the National Council for Scientific and Technological Development (CNPQ) developed a project for the inclusion of girls and women in the scientific field. The project became known as “Girls in Science” and several universities in Brazil received funding to carry out actions for this gender inclusion, two of them from the south of Brazil are the University of the South of Santa Catarina (UNISUL) and Federal University of Rio Grande do Sul (UFRGS).

- **4.3.1 At the University of Southern Santa Catarina (UNISUL)**

UNISUL aims to contribute through the Girls in Science Project to encourage girls to enter the universe of exact sciences, engineering, and computing. Thus, learning to discover, believe, invent and reinvent. This project seeks to modify the minority scenario of women in the scientific scenario, currently represented by 30% of women (UNISUL, 2020).

The project is essential because it effectively corroborates the fifth and seventh target of SDG 4, which maintains that by 2030, countries need to ensure the elimination of gender disparities in education and guarantee equal access to all levels of education and professional training for the most vulnerable.

Thus, university extension projects that focus on scientific research, enables an exchange of knowledge between students and the community. Since it influences the use of active teaching methodologies aimed at consolidating critical emancipatory thinking and empowering acquired knowledge. In addition, the projects can be tools of adherence and articulation of public health programs and policies that turn their attention to issues inherent, among others, to women's empowerment (Casadei, 2016).

Also, the “Girls in Science” project is an example of university extension that allows community interaction and the role of the university in promoting sustainable development through the education and empowerment of women, seeking to eliminate gender disparities and promote knowledge and technical skills for young women, as well as encouraging access to quality higher education.

4.3.2 At the Federal University of Rio Grande do Sul (UFRGS)

Another initiative worth mentioning is the Girls in Science extension project at the Federal University of Rio Grande do Sul (UFRGS). In that university the focus was to attract girls to Science and Technology (S&T) careers and to encourage women who have already chosen these careers to persist and become change agents in the scientific and technological development of Brazil. This objective is traced from the training of undergraduate students to disseminate Science and Technology through Astronomy, Physics and Robotics in public schools. The project also aims to sensitize the academic community and the neediest communities about the role of women in society, contributing to the elimination of gender stereotypes.

6. Conclusion



This paper presented three university extension projects with potential to contribute to strategies for high education institutions collaborate with SDGs 4 and 5. The three cases referring to two Brazilian programs named: The Maternal-Child and Family Care Program and Girls in Science. The focus is to enhance the targets of quality education and gender equality.

In this context, the extension programs regarding science and technology showed up integrative and efficient initiatives to emphasize the socioeconomic and cultural women figure in society. As well as, it influences in women empowerment through the improving education as a whole when it connect universities and women.

Through this study it is possible to understand that the presence of women in higher education institutions is increasing. However, the institutions should to encourage female participation in all sectors, especially in the areas of technology and exact sciences. As well as stimulating girls' access to study entry in these areas, through the connection between university, science and community.

This study has some limitations, such as the lack of presentation of quantitative data corresponding to the results of the projects, both for the community and for the university. Therefore, it would be necessary to carry out analyzes of other initiatives in other contexts, including geographic and social. In addition, studies to check the best approaches and the main difficulties of the projects. Still, another idea would be research and interviews with women who have already done and were favored by university extension programs to verify the influence of these actions in their lives.

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