

REVIEW ARTICLE

BARROS, Alexsandra Gomes ^[1], SÁ-SILVA, Jackson Ronie ^[2]

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SUMMARY

Nursing has care as the object of its study, deepening and action. Pedagogy, education. Nursing and Pedagogy complement each other in a theoretical and practical sense when dealing with their objects. Two questions are central to the discussion presented in this problematization in a bibliographic research format, based on a qualitative approach, whose analysis was based on the assumptions of documentary research: is there a specific pedagogy of nursing? Could we talk about pedagogy in nursing when it comes to caring and educating it? The article intends to reflect on the Pedagogy of Care, signaling new horizons for nursing science as a field of knowledge that performs, in its practices, health education, in the midst of formal processes of education via Pedagogy. We understand that there is a Pedagogy in Nursing, that is, theoretical assumptions of pedagogy science underpin the educational practice of Nursing, giving body to educational action, even in the health sphere.

Keywords: Pedagogy and nursing, pedagogy in nursing, pedagogy of nursing, care, training.

1. INTRODUCTION

Nursing has care as the object of its study, deepening and action, aiming at the health and well-being of people and the community; seeks the act of educating as one of its main practices, understanding that the subject should have knowledge as an instrument for the construction of an integral health. This is how the act of educating is also caring.

Something similar occurs with pedagogy science, which has in the act of educating care, because, without knowledge, people would not reach the condition of citizens, favoring possibilities of intervention and transformation of realities.

We observed that the sciences Nursing (caring) and Pedagogy (education) share equal objects of knowledge, in the midst of their theoretical and practical developments, because care and education are revealed as common processes in their routines and purposes, and the pedagogy of caring should be an intentional act, translated by a problematizing and interdisciplinary methodology, where the health professional will need to be based on a formation of , initial and continued, which values the educational processes, in addition to the specific knowledge of the nursing area.

The sense of care is a construction of Nursing, as educating is pedagogy. Care was born spontaneous/natural, intuitive/as art, traditional, gaining, over time, systematizations/scientific knowledge, which guaranteed autonomy and identity to nursing professionals. Different is not the path of Pedagogy, when compared to that of Nursing; were centuries of constructions, reconstructions and deconstructions to reach the current status of science and its implications.

Thus came the theme PEDAGOGY OF CARING: A NEW PERSPECTIVE FOR NURSING, trying to identify a Pedagogy proper to Nursing or a historical, scientific, technical and human Pedagogy that also reaches, through interdisciplinarity, the nursing science.

That said, do we problematize, is there a specific pedagogy of nursing? Could we talk about pedagogy in nursing when it comes to caring and educating it?

The theme, of academic and professional relevance, analyzes the construction of discourse and the practice of educating care, hypothesizing that not only scientific and technical principles are capable of basing the humanized and political action of the nursing professional, seeking in the horizons of pedagogy science necessary elements, theoretical and practical, to materialize it from an action of more assertive educating care.

The article intends to make us reflect on the Pedagogy of Care, signaling new horizons for nursing science, interdisciplinary knowledge and actions with Pedagogy, in the midst of formal processes of education.

We carried out a bibliographical research, based on a qualitative approach, whose analysis was based on the assumptions of documentary research envisioned by Almeida, Guindani and Sá-Silva (2009). The process of content analysis of the twelve articles catalogued, specifically on the subject, was developed from Bardin's category study (2016).

2. DEVELOPMENT

2.1 THE MEANING OF CARING AND CARE FOR NURSING

The sense of care and care for nursing was configured in the evolution of science and profession itself. For Souza (1988), nursing care has been spontaneously, intuitively and traditionally, as art. Only in the twentieth century is systematized from techniques.

In the 1950s, questions arose about care in a technically oriented way, when scientific knowledge is incorporated into nursing practice. In the 1960s, we sought to develop conceptual models and nursing theories, also aiming to confer identity and autonomy to the profession.

Care for the human being is part of history as an activity linked to the cure of diseases, to the relief of physical and mental suffering. Thus, the conception about the disease and health has always determined principles or ways of practicing care guided by the predominant values in society. (GONÇALVES e SENA, 1999, p.02)

Oliveira; Paula and Freitas (2007) mention the Nursing Theories that were mostly elaborated in the 1960s and 1970s: Hildegard E. Peplau and the theory of interpersonal relationships, Dorothea Orem and the theory of self-care deficit, Martha Elizabeth Rogers and the humanistic and humanitarian theory, Madeleine M. Leininger and the theory of cross-cultural nursing, Jean Watson and the theory of transpersonal care and Wanda Horta and the theory of basic human needs, valuing care to the human being.

According to Horta (1974), the Theory of Basic Needs, supported by Maslow, presupposes: nursing is a service provided to people. Nursing implements equilibrium states, prevents states of imbalance and has imbalances in balance by care, in meeting their basic needs. It always seeks to relead the subject to the situation of dynamic balance in time and space, attributing meaning to caring.

In 1985, the scholar and researcher Meleis, according to Alcântara et al. (2011), classified nursing theories.

In this paragraph, we will mention only the classifications that complement the systematization already presented: environmental theory (1958), theory of basic needs (1955), prescriptive theory of care (1958), humanist theory (1960), theory of the nursing process (1961), homeostatic theory (1961), theory of the achievement of objectives (1964), theory of the person, care and healing (1966), theory of energy conservation and holistic nursing (1967), synergistic theory (1969), adaptation theory (1970), Neuman systems theory (1974), vir-to-human theory (1981), rhythmic theory of nursing (1983), paper modeling theory (1983), self-concept construction theory (1985), health theory as expanded consciousness (1986), general nursing theory (1993) and stress control theory (1995).

Seeking to bring the theories mentioned above to the object of our analysis, we understand that such structures, although they do not deal directly with education, since they are not the main foundation of their approaches, they develop the educational process by proposing and executing the care of people.

Today, care takes on new dimensions as a product that has diversified into numerous activities, becoming an integral part of historical, political, economic, cultural and social reality.[...] we understand care as a human work[...]. Social and

economic work that is elaborated through the act thought, realized and recreate[...]d. The realization of care is based on the conception of a work directed to individuals and the collectivity. It is organized based on the values and beliefs that ethically guide the relationships between the subjects involved in the act of caring. Thus, care is expressed in activities that, for the most part, are consumed at the time of its performance by caregivers aware of its project and execution and, not always aware of its results and consequences. (GONÇALVES e SENA, 1999, p. 2 e 3)

Nursing care and professional identity itself permeate general principles, theories and universal patterns, no longer restricted to intuitive actions.

In an attempt to conceptualize care and reflect on its definitions, we quote:

Nursing care: It is the planned, deliberative or automatic action, resul[...]ting from its perception, observation and analysis of the behavior, situation or condition of the *human being*. Nursing care can involve several activities, for example, oral hygiene – checking the material that the patient has; assess their self-care capacity; observe conditions of the oral cavity; explain patient care; teach, if necessary, the appropriate brushing technique; forward to the dentist; wash the material used; annotate, etc... (HORTA, 1974, p. 13)

For Quadros *et al.* (2009, p. 01) “Care consis[...]ts of the attention to take care of the other, aiming to meet the needs of the client to be cared for”.

Care is related to education, because people would not understand and act consistently according to their need (professional and personal) without having experienced the educational process, which refers to learning.

For this, a specific science, the pedagogical, needs to base the methodological and political act of those who educate, ensuring the learning subject knowledge that qualifies his citizen and transforming condition, because without having knowledge as an instrument of power, man would understand only the specific relationship health-disease-cure, without analyzing all dimensions of his personal and community life, aiming at the fundamental balance for his

significant existence in the world , relating to the environment.

2.2 THINKING A LITTLE ABOUT THE PEDAGOGY OF CARING

When we observe teaching in nursing, we are mostly encountered with students who, in addition to teaching, assume specific training positions in their areas of education, contradictorily attributing greater value to the professional field of health, to the detriment of the field of education, finding meaning for this practice in the precariousness of teacher professionalization in Brazil.

For Rodrigues and Sobrinho (2007), many professors (nursing graduates) built their professional identities in the education sector, considering their experiences throughout school life⁹, without any specific training in the pedagogical field, although this is fundamental, just observing the imperatives of 21st century society and the demands made to the teaching and learning process in higher education.

[...] there is a fragility in the stages of nursing education that do not enable them to work in teaching. [...] they learned to teach classes based on their teachers as symbols at the time they were students. With this, there is a need for improvement [...](RIBEIRO *et al.*, 2018, p. 299)

It is believed that the nursing professional attaches importance to the pedagogical process, among other issues, when it has the clarity of its validity for teaching, because its materiality is also expressed in the care it provides to the student or patient subject, which presupposes the need for initial and continued training of the nurse teacher, considering Pedagogy as a foundation.

Assertively, Rodrigues and Sobrinho (2007, p. 457) comment that “It is necessary to continuously train technical, theoretical and pedagogical preparation inserted in the economic, political, social and cultural context so that there are transformations in nursing education”, otherwise we will have as a product insufficient training of/in nursing.

Health Education is part of nursing care, because in essence we are educators, although Health Education has long been associated only with didactic procedures

for the transmission of knowledge in health, aiming mainly at preventive measures. Even today, many health professionals remain guided by this reductionist and positivist view of Health Education, however the paradigm shift allows the understanding of science at a much more critical and creative level, in which Education and Health come to be understood as areas of human knowledge that, integrated, reinvigorate the exercise of citizenship. (CHAGAS *et al.*, 2009, p. 37 e 38)

The DCN (National Curriculum Guidelines) systematize a orientation of the curriculum, methodology and evaluation to be developed in educational practice, according to Rodrigues and Sobrinho (2007), valuing the scenarios of science, education and society itself. Having said that, there is the necessary approximation of theoretical content to practical content, feeding the concrete experience of the undergraduate.

According to Menezes and Novaes (2018), initial and continuing education, focusing on practice, reality, health and social problems, service, etc., will allow a more contextual and problematizing view of the teacher/nurse.

In this scenario, we understand that the educational assumptions are materialized by an intentional pedagogical act, in which the educator/nurse is not only impregnated by assumptions, since the educational action is not neutral, and should be political and transformative. It is in this sense that we will have citizenship as a result of the educational process.

Here, indisputably, we evoke the pedagogy science in the process of formation, trying to answer the questions already presented in the introduction of this article.

We began a reflection on the presence of a specific pedagogy of nursing or nursing when dealing with the educating care.

We understand that Pedagogy is a science that has as its object of investigation the phenomenon of education, the teaching and learning process. By the very logic of nursing education, the phenomenon of education is not its main agenda, but an object that arises in the face of the need for care.

Thus we think of the Pedagogy of Care, realizing that in the educational practice of Nursing there are pedagogical assumptions, qualifying the understanding about the existence of pedagogy science in the educational and nursing care practice.

We do not understand, therefore, that there is a specific Pedagogy of Nursing, because Pedagogy, as a science, cannot be reduced to the mere mechanism of teaching (technical) of nursing science.

In this sense, it is opportune to deal with the limits and possibilities of Pedagogy in Nursing, that is, the Pedagogy of Care.

It is necessary to have as horizon the practice of a pedagogy of nursing care capable of sustaining the act of educating as a care and assisting/caring as an act of educating. A methodology capable of transforming it into an intentional social act, directed to the cause of the defense of life, should be transposed into the praxis of nursing pedagogy. (GONÇALVES e SENA, 1999, p. 04)

In the Pedagogy of Care we are implicated by two interdisciplinary objects – caring and educating – which manifest themselves as a problem for nursing science.

Nursing, throughout its history, has been prioritizing a fragmentary/Cartesian educational rite when promoting an education for care, based only on knowledge of the health area, regardless of the pedagogical dynamics for the materialization of knowledge in the life of the health service user, which presupposes a limit, besides conceptual, procedural and atheycdinal.

The human being is subject and object of work in nursing, while being unique and diverse. Therefore, nursing must consider it in its entirety, respect the way of living of each person and its particularities, seek to understand the various influences and determinations that may induce its way of being in the world. (PINTO *et al.*, 2017, p. 105)

As a possibility, we have the rethinking of the treatment of objects – caring and educating – by nursing science, reflecting and optimizing interdisciplinary actions with Pedagogy, favoring, by this way, an assertive professional behavior of nurses (in a space of formation or

health) in the horizons of Pedagogy of Care.

It is essential to understand, from the perspective under analysis, according to Chagas et al. (2009, p. 38), the act of educating as an act of personal emancipation, of man and of the community itself, understanding that education and care are interdependent. "From the moment the nurse is caring, he is educating and learning."

Observing pedagogical and nursing practices, it is analyzed that both teachers and nurses take care and educate simultaneously in their professional functions. Therefore, care and education are naturally interdisciplinary, complementary and inseparable practices. (QUADROS *et al.*, 2009, p. 01)

In order to better understand assumptions about interdisciplinarity, we follow with some considerations:

- part of problem situations, identifying the object of study;
- articulates sciences according to the need for research, aiming at the production and socialization of results, because knowledge is at the service of the demands expressed by man, these being the mission of the university training space;
- it is a mixture of problematization, contextualization and flexibilization;
- problematization when you think of the object in itself. Contextualization when you place the object in a network of relationships. Flexibility when it brings to the discussion issues of social relevance, enriching the object of investigation;
- interdisciplinarity, as in the production of any knowledge, such as transdisciplinary, communicates by affirmation, denial and complementation, considering that the world is not only unveiled by agreements; contrary opinions are fundamental for the very enrichment of the sciences in general.

We know that nurses and nurses, once bacharéis, are disqualified, in their initial and continuous formations, to think about the Pedagogy of Caring.

The initial training process of the nurse professor – undergraduate and graduate – is expressed with considerable pedagogical restrictions, which ends up impoverishing the educational path of student education (student and teacher), evidencing hiatus in their educational practice and care, which represents a great limit to the development of pedagogy of care.

The unpreparedness to act in teaching can be configured as an obstacle, not only in the didactic-pedagogical aspect, but in the process as a whole. Often, the teaching nurse is not sufficiently equipped to act in their context of action, which does not favor the development of a quality teaching action that favors the development of the student by the quality of the care of the services provided[...]. (DUARTE; LUNARDI e BARLEM, 2016, p. 07)

If, on the one hand, there are pedagogical restrictions, there is the enhancement of the specific processes of scientific and technical knowledge in the nursing area in training, enhancing the graduation of professionals who overvalue nursing issues to the detriment of educational issues, which leads us to the discourse of precariousization of teacher professionalization in Brazil, previously presenting in this article as a limitation for the significant exercise of the nursing professor, and allows us to analyze beyond speech.

Rodrigues and Sobrinho (2007), based on Schön (2000), understand that in teacher education, it is necessary to consider a triad: reflection in action, on action and on reflection in action, qualifying the educator to better direct his pedagogical practice, because the scientific, technical, technological, human, political dimensions will need to be valued for the fulfillment of the social responsibility of teaching – of educating caring.

In view of the commitment to education and the formation of human resources, the complexity of the actions of the teaching nurse who, in addition to caring, assumes the responsibility of teaching care is evidenced. This is a great challenge, because it is necessary to be aware that technical skills are not sufficient for the development of care, making it necessary to build knowledge with a view to ethical formation, the ability to empower its practice, empathy and solidarity in the scope of doing. (DUARTE; LUNARDI e BARLEM, 2016, p. 07)

When we think about the restrictions regarding the initial training of the bachareis nurses, there is continuous training as an important resource of theoretical and practical complementation, in an attempt to repair the pedagogical gap left in the initial formation, representing a concrete and virtuous path for work with the Pedagogy of Caring.

In this understanding, we agree with Oliveira; Paula e Freitas (2007), mentioning that the

systematization presented by Wanda de Aguiar Horta, which evokes the history, diagnosis, care plan, care plan or prescription, evolution and prognosis of nursing, is part of a great planning and action of care (of the institution and the health and health education professional), which values educating in its process and the problematizing methodology as an alternative for its full meaning.

The problematizing methodology is one of the interdisciplinary pillars, which has already been mentioned here, allowing us to better qualify and quantify the object of investigation.

We ratify that caring and educating cannot be understood in the plot of Pedagogy of Caring, dissociated.

Thinking pedagogy does not seem to us a single obligation of professional health spaces, but, above all, of the spaces of higher education – in Nursing, since the education of the 21st century expresses generalist demands for the nursing professional, demands that Cartesian education does not have and will not be able to respond.

Without an understood and applied Pedagogy, in its complexity, in health, we will not have concrete answers and experiences regarding the effectiveness of the Pedagogy of Care. It seems to us to be evident that Nursing needs to better dialogue with Pedagogy, producing, by theory and action, the Pedagogy of Care.

3. FINAL CONSIDERATIONS

We revisit with this article the objects of research and work of Nursing (caring) and Pedagogy (educating). We understand that, by the care and educational action of Nursing, the objects caring and educating are interdisciplinary with Pedagogy, observing the methodology of problematization and the teaching intentionality as presuppositions of the Pedagogy of Care.

The Pedagogy of Caring is the conscious and emancipatory materialization of the act of caring by educating and educating caring, surpassing the reductionist view of health-disease-cure.

We understand that there is a Pedagogy in Nursing, that is, theoretical assumptions of

pedagogy science underpin the educational practice of Nursing, giving body to educational action, even in the health sphere.

In this sense, we identify that we do not have a Nursing Pedagogy, just as we have the traditional pedagogies, technicists, escolanovista, liberator, critical-social contents, constructivist, etc., since nursing does not have as main object to discuss education, as the other pedagogies expressed here.

The bachelor of nursing has no pedagogical elements for the educational work of care, having much more attention and dedication to the specific elements of health to the detriment of the pedagogical dimensions that allow a more significant educational process.

Thus, we evaluate dwell ed as a possibility of complementing the training of the bachelor's degree in nursing, enriching the pedagogical element initially deprecated.

We conclude that continuing education should be an obligation of the formative spaces and health professionals, especially, given the field of analysis of the article, nursing.

This article is also a beginning to think about the Pedagogy of Caring, intending to continue the study, given its academic importance.

REFERENCES

ALCÂNTARA, Marcos Roberto de; SILVA, Damiana Guedes de; FREIBERGER, Mônica Fernandes; COELHO, Milena Pietrobon Paiva Machado. Teorias de Enfermagem: a importância para a implementação da sistematização da assistência de enfermagem, Revista Científica FAEMA, 2011, 2(2): 115-132, maio-outubro, 2011. Disponível em <http://www.faema.edu.br/revistas/index.php/Revista-FAEMA/article/view/99>. Acesso em 30/06/2020 junho.

BARDIN, Laurence. Análise de conteúdo. São Paulo: Edições 70, 2016.

CHAGAS, Natália Rocha; RAMOS, Islane Costa; SILVA, Lúcia de Fátima da; MONTEIRO, Ana Ruth Macêdo; FIALHO, Ana Virgínia de Melo. Cuidado Crítico e Criativo: contribuições da

educação conscientizadora de Paulo Freire para a enfermagem, *Ciencia y Enfermería*, vol. XV, 2009, núm. 2, 35-40, agosto 2009. Disponível em: <http://www.redalyc.org/articulo.oa?id=370441799005>. Acesso em 17/06/2020.

DUARTE, Carla Godinho; LUNARDI, Valéria Lerch; BARLEM, Edison Luiz Devos, Satisfação e Sofrimento no Trabalho do Enfermeiro Docente: uma revisão integrativa, *REME – Rev. Min. Enferm.* 2016, 20:e939, 2016. Disponível em: <http://www.reme.org.br/artigo/detalhes/1073>. Acesso em 18/07/2020.

GONÇALVES, Alda Martins; SENA, Roseni Rosangêla de. A pedagogia do cuidado de enfermagem, *REME rev. min. Enferm*, 1999, 3(1/2): 41-5, jan-dez 1999. Disponível em <https://pesquisa.bvsalud.org/portal/resource/pt/bde-26574>. Acesso em 01/07/2020.

HORTA, Wanda de Aguiar. Enfermagem: teoria, conceitos, princípios e processo. *Rev. esc. enferm. USP*, 1974, 8(1):7-17, 1974. Disponível em: https://www.scielo.br/scielo.php?pid=S0080-62341974000100007&script=sci_abstract&lng=pt. Acesso em 22/06/2020.

MENEZES, Kátia Rodrigues; NOVAES, Maria Rita Carvalho Gabi. Formação Pedagógica de Professores de Graduação em Enfermagem: revisão integrativa da literatura, *CCS Comunicação em Ciências da Saúde*, 2018, 29(4); 243 – 54. Disponível em: <http://www.esccs.edu.br/revistaccs/index.php/comunicacaoemcienciasdasaude/article/view/336>. Acesso em 05/08/2020.

OLIVEIRA, Marcela Lino de; PAULA, Taís Romano de; FREITAS, João Batista de. Evolução Histórica da Assistência de Enfermagem, *ConScientiae Saúde*, vol 06, núm. 01. 2007,127-36. Disponível em: <https://periodicos.uninove.br/index.php?journal=saude&page=article&op=view&path%5B%5D=919&path%5B%5D=788>. Acesso em 30/07/2020.

PINTO, Anaísa Cristina; GARANHANI, Mara Lúcia; FRANÇA, Thiago Eduardo de; PIEROTTI, Isadora. Conceito de Ser Humano nas Teorias de Enfermagem: aproximação com o ensino da condição humana, *Pro-Posições*, vol 28, 2017, 88-110, 2017. Disponível em: https://www.scielo.br/scielo.php?script=sci_abstract&pid=S0103-73072017000400088&lng=

pt&nrm=iso. Acesso em 07/06/2020.

QUADROS, Vanessa Franco de; GARCIA, Maria Isabella Haslett; MEZA, Miriam Elisa Riveiro; VIEIRA, Patrícia Silva; SOUZA, Itatiana Oliveira de; DIAS, Francisleide Rodrigues Andrade; ANADON, Simone. Enfermagem e Pedagogia: a junção entre o cuidado e educação -um relato de experiência, 2009. Disponível em <https://prospesp.furg.br/anaismpu/cd2009/ensino/317-274-1-SM.pdf>. Acesso em 05/06/2020.

RIBEIRO, José Francisco; COSTA, Jéssica Moura Luz; SILVA, Maria Aparecida Coutinho da; LUZ, Vera Lúcia Evangelista de Sousa; VELOSO, Marylane Vieira, Ribeiro; COELHO, Dalila Maria Matías. Prática Pedagógica do Enfermeiro na Docência do Ensino Superior. Revista de Enfermagem, 2018, 291 - 302. Disponível em <https://periodicos.ufpe.br/revistas/revistaenfermagem/article/view/25129/27792>. Acesso em 12/07/2020.

RODRIGUES, Malvina Thaís Pacheco; SOBRINHO, José Augusto de Carvalho Mendes. Enfermeiro professor: um diálogo com a formação pedagógica, Rev. bras. enferm., 2007, 456-59, maio-junho de 2007. Disponível em <http://dx.doi.org/10.1590/S0034-71672007000400019>. Acesso em 03/08/2020.

SÁ-SILVA, Jackson Roni; ALMEIDA, Cristóvão Domingos de; GUINDANI, Joel Felipe. Pesquisa documental: pistas teóricas e metodológicas, Revista Brasileira de História & Ciências Sociais, 2009, núm. 01, 01 -15, julho 2009. Disponível em: <https://periodicos.furg.br/rbhcs/article/view/10351/pdf>. Acesso em 12/08/2020.

SCHÖN, Donald A. Educando o profissional reflexivo: um novo design para o ensino e a aprendizagem. Porto Alegre (RS): Artmed, 2000.

SOUZA, Mariana Fernandes de. Teorias de Enfermagem: importância para a profissão, Acta Paulista de Enfermagem, 1988,1(3): 63-5, setembro 1988. Disponível em: https://acta-ape.org/wp-content/uploads/articles_xml/1982-0194-ape-S0103-2100198800010015/1982-0194-ape-S0103-21001988000100015.x45416.pdf. Acesso em 10/07/2020.

^[1] Graduated in Pedagogy from the State University of Maranhão (UEMA); Specialist in Higher Education Teaching (UCAM); Specialist in Management, Supervision and Educational

Guidance (Santa Fe College). Member of the Research Group Teaching Sciences, Health and Sexuality of the State University of Maranhão (GP-ENCEX / UEMA).

^[2] Adjunct Professor, Department of Biology, State University of Maranhão (DBIO – UEMA / São Luís, Maranhão, Brazil); Post-Doctorate in Education from the Faculty of Education of the Federal University of Rio Grande do Sul (FACED – UFRGS); PhD in Education from the Graduate Program in Education of the University of Vale do Rio dos Sinos (PPGE – UNISINOS); Master's degree in Health and Environment from the Federal University of Maranhão (UFMA); Professor of the Graduate Program in Education of the State University of Maranhão – Professional Master (PPGE – UEMA). Leader of the Research Group Teaching Sciences, Health and Sexuality (GP-ENCEX / UEMA).

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