



THE EVOLVING ROLE OF TEACHERS IN COMPREHENSIVE SEXUALITY EDUCATION IN INDIA THROUGH EDUCATION 5.0

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RESEARCH ARTICLE



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Abstract

Education means all-round development of an individual. Sexual health is also a part of this development. Guidance in a proper way of sexual life is vital for the physical as well as mental development of a person. Comprehensive Sexuality Education (CSE), a curriculum-based process encompassing cognitive, emotional, physical, and social aspects of sexuality, is globally recognized as fundamental for youth health, well-being, and dignity, enabling informed choices about sexual and reproductive health and rights. Despite clear international guidance and national policy frameworks, CSE implementation in India faces significant challenges, including low coverage, teacher discomfort with sensitive topics, and pervasive societal stigma.

This descriptive study aligns with NEP 2020, examines the transformative evolution of the teacher's role in delivering CSE for empowering their youth with the knowledge and skills necessary for healthy, dignified lives, fostering a more equitable and informed society, particularly through the lens of Education 5.0.

Keywords: *Comprehensive Sexuality Education, Education 5.0, teachers' role, and NEP 2020*

1. Introduction: The Nexus of CSE, Teachers, and Educational Transformation

Mahatma Gandhi pointed out that education is the all-round drawing out of the best in the child and man- body, mind, and spirit. So, education should be concerned about all aspects of human beings regardless of their sex, colour, communities, desire, feelings, orientation, and attraction, etc. A shocking study of the Indian Ministry of Women and Children Development (IMWCD), UNICEF and Prayas found that only 53% of children between the ages of 5 and 12 have been sexually abused. Another study by the All India Educational and Vocation Guidance Institute revealed that between 42% to 52% of young students in India have not adequate knowledge about sex. The national surveillance survey 2006 highlighted that among 2.5 million HIV affected people in India, a major portion are young people. The sexuality of an individual is a powerful aspect that can change all allied potentials of an individual. Proper and comprehensive education on the sexuality of human beings will be helpful for a future healthy life because the sexual health of an individual demands a positive and respectful approach to sexuality and sexual relationships. Maximization of pleasurable and safe sexual experiences, free from force coercion, discrimination, and violence are the quest of this urge of human life (WHO, 2006a).

The landscape of education is undergoing a profound transformation, driven by technological advancements and a growing recognition of holistic development. Within this evolving context, Comprehensive Sexuality Education (CSE) stands as a critical component for empowering young people, while Education 5.0 emerges as a paradigm poised to revolutionize learning delivery. This research study will be established the foundational understanding of these two interconnected domains within the Indian educational framework.

2. Objectives of the study

This research undertakes a comprehensive analysis of the evolving role of teachers in the delivery of Comprehensive Sexuality Education (CSE) in India, specifically examining this transformation through the lens of Education 5.0.

The primary objectives include-

1. Conceptualizing the education 5.0 as a new paradigm for learning.
2. Exploring the current landscape of CSE as global mandate as well as Indian context.
3. Describing the role of the teachers in CSE delivery.
4. Identifying the systemic and socio-cultural challenges that impede effective delivery of CSE by teachers.

5. Demonstrating the evolving role of teachers in the realm of Education 5.0 as powerful catalysts for enhancing CSE outcomes.
6. Describing the initiatives of NEP 2020 for integrating education 5.0 principles into CSE.
7. Explain the long-term impact of education 5.0 on CSE in India.

Ultimately, this analysis envisions a future where empowered youth in India are equipped with the right information to choose the responsible decisions about their health and overall well-being.

3. A New Paradigm shift for Learning through education 5.0

Education 5.0 represents a significant leap forward, often described as the fifth industrial revolution in education. This new paradigm is fundamentally centered on creating a learner-centric environment by strategically leveraging advanced digital technologies. Building upon the foundations of Education 4.0, this innovative approach goes beyond mere technological integration, placing a strong emphasis on personalized and human-centered learning experiences, alongside significant attention to enhance engagement, greater accessibility, develop 21st-century skills, and pervasive technology integration etc. for social and emotional development.

4. Comprehensive Sexuality Education (CSE)

Comprehensive Sexuality Education (CSE) is defined as a curriculum-based process of teaching and learning about the cognitive, emotional, physical, and social dimensions of sexuality. Its overarching aim is to equip young students with the essential knowledge, attitudes, and skills required to safeguard their health, well-being, and dignity. This empowerment enables them to make informed decisions regarding their sexual and reproductive health and rights (SRHR) throughout their lives. Globally, CSE is considered indispensable for advancing public health outcomes and promoting gender equality, firmly rooted in principles of universal human rights. For optimal effectiveness, CSE is designed to be scientifically accurate, evidence-based, culturally relevant, gender-transformative, and age-appropriate, integrating information incrementally over several years to align with developmental capacities.

- i. Global Mandates of CSE:** Key content areas within CSE, as articulated by international guidelines such as the UNESCO/UNFPA International Technical Guidance on Sexuality Education (ITGSE), encompass a broad spectrum of topics. These include understanding various types of relationships (family, friendships, romantic connections, long-term commitment, and parenting), exploring values and rights pertinent to sexuality, and developing a nuanced understanding of gender (including its social construction, norms, equality, stereotypes, and gender-based violence). Furthermore, CSE covers the human body and development (anatomy, physiology, puberty, reproduction), sexuality and sexual behavior (including the role of sex in human life, sexual response, and masturbation), and critical aspects of sexual and reproductive health (such as pregnancy prevention, safe sexual practices, and the prevention of sexually transmitted infections, including HIV). Organizations like UNFPA and UNESCO actively collaborate with governments and partners, to facilitate the implementation of CSE programs within both formal school curricula and non-formal community settings. These efforts consistently advocate for robust policies and sustained investments in the continuous training of educators.
- ii. Indian Context of CSE through Policy and Curricular Frameworks:** The Adolescence Education Programme (AEP) in India is a significant initiative guided by the National Curriculum Framework (NCF) of 2005. This framework advocates for an education that fosters "independence of thought and action, sensitivity to others' well-being and feelings, and the ability to respond to new situations in a flexible and creative manner". The AEP materials are designed to empower young people through participatory, process-oriented, and non-judgmental approaches, emphasizing the development and application of life skills in real-life contexts rather than mere rote knowledge acquisition. Key content areas within the AEP align closely with broader CSE principles. These include understanding the physical and emotional changes during adolescence, such as puberty and menstruation. The program also addresses adolescent health issues, including the risks associated with substance abuse and HIV/AIDS. A significant focus is placed on developing gender sensitivity, covering topics such as the social construction of gender, norms, equality, stereotypes, and gender-based violence. Relationships are another core component, teaching about various family structures, friendships, love, romantic relationships, long-term commitment, and parenting, with an emphasis on inclusion, respect, and tolerance. Furthermore, the AEP aims to enhance decision-making skills, promoting critical thinking for healthy choices, including strategies for resisting peer pressure and practicing abstinence. Finally, it includes sessions on coping with emotions and stress, fostering emotional sensitivity, stress management, and self-appreciation.

The presence of detailed national frameworks, such as NCERT's Adolescence Education Programme (AEP), which aligns with the core principles of CSE, alongside comprehensive international guidance from UNESCO and UNFPA, suggests a robust theoretical and policy foundation for CSE in India. These frameworks outline what should be taught and how it should be approached, emphasizing life skills, non-judgmental methods, and age-appropriateness.

5. The Role of Teachers in CSE Delivery

Teachers are widely acknowledged as central figures in shaping learning outcomes and the overall quality of education within any system. In the context of Comprehensive Sexuality Education (CSE), their role extends significantly beyond delivering factual content.

This crucial aspect of their role involves establishing clear ground rules, such as maintaining confidentiality and avoiding generalizations about individuals or groups. Teachers are also expected to demonstrate active listening by paraphrasing student questions and contributions, thereby validating student voices and fostering an atmosphere of trust. Building this trust is paramount, requiring a willingness to respond to all questions without shame or minimization, which is particularly vital given the sensitive nature of CSE topics. Furthermore, teachers are tasked with encouraging participatory contributions from learners, ensuring that students feel valued and are able to personalize and integrate the information and skills being taught into their own understanding. Essentially, teachers are the primary facilitators of discussions, guiding students through complex and often personal subjects.

However, despite well-articulated guidelines, reports indicate that only about one-third of school students in India receive some form of CSE. This significant discrepancy between policy intent and actual delivery suggests that the primary challenge is not a lack of theoretical understanding or governmental commitment, but rather profound difficulties in the practical, widespread, and consistent implementation by the teachers of these programs.

6. Systemic and Socio-cultural Challenges Faced by Teachers

Teachers in India face a lot of challenges that broadly impede their effectiveness across the educational spectrum. These include high student-teacher ratios, burdensome non-teaching workloads, rigid curricular structures, and often suboptimal working conditions. However, when it comes to the specific domain of Comprehensive Sexuality Education (CSE), these general challenges are compounded by unique and deeply entrenched systemic and socio-cultural barriers.

A consistent and pervasive issue is the lack of specific training and preparedness among educators for CSE. Untrained teachers often lack the necessary knowledge and skills to effectively teach CSE.

Teachers' personal opinions and attitudes may not always align with the objectives of CSE, leading to a palpable sense of unease when discussing certain subjects. This discomfort with sensitive topics frequently results in the omission or dilution of topics deemed controversial, which undermines the very comprehensiveness that CSE aims to achieve.

Deep-seated discomfort surrounding adolescent sexuality persists in India, largely due to strong social, cultural, and religious taboos. The persistent stigma associated with sexual matters in many cultures often translates into significant community and parental opposition to CSE. Teachers, being part of these communities, may internalize these negative attitudes, leading them to prioritize discussions on abstinence and general life skills while consciously avoiding more sensitive or explicit topics. The inherent incompatibility of some CSE content with prevailing local norms, coupled with the dilemma faced by the teachers in balancing their professional role with parental expectations, creates a highly problematic environment for effective delivery.

Furthermore, teachers frequently contend with limited institutional support and resources. Many report a lack of adequate backing from their institutions, a scarcity of appropriate teaching resources, and insufficient instructional time dedicated to CSE, all of which diminish its effectiveness.

A related challenge is the lack of cultural understanding among some teachers, who may not be sufficiently versed in the diverse cultural backgrounds of their students. This can lead to a reluctance to teach CSE openly, fearing cultural insensitivity or backlash.

Finally, the cumulative effect of these challenges often results in inexpedient teaching, where untrained and uncomfortable teachers exercise their own judgment, leading to arbitrary and inconsistent delivery of CSE. This directly impacts the acquisition of comprehensive sexual and reproductive health knowledge among learners, leaving significant gaps in their understanding. The consequence is that CSE, if delivered at all, is often incomplete or biased, failing to adequately equip young people with comprehensive knowledge, attitudes, and skills necessary for their sexual and reproductive health. This perpetuates a knowledge gap among youth, leaving them vulnerable to various sexual health risks and, paradoxically, reinforcing the very taboos and misinformation that CSE aims to dismantle.

7. The Evolving Role of the Teachers in Education 5.0-Enabled CSE

The integration of Education 5.0 principles into Comprehensive Sexuality Education (CSE) fundamentally reshapes the role of the teacher. No longer solely a purveyor of facts, the educator transforms into a dynamic facilitator, mentor, and crucial bridge-builder, navigating students through a technology-rich learning environment while addressing the inherent sensitivities of CSE. This evolving role encompasses several key responsibilities. Like-

Teachers will be tasked with curating and adapting digital content. This involves carefully selecting, adapting, and integrating diverse digital resources, including AI-driven platforms, VR simulations, and gamified content, to ensure they are age-appropriate, culturally sensitive, and directly aligned with CSE objectives.

Guidance of teachers will be crucial in facilitating students for critical engagement like; critically evaluate digital content, discern accurate information, and engage in thoughtful discussions, whether in traditional classrooms or virtual spaces.

A core aspect of the new role is personalizing learning journeys. By leveraging data analytics derived from adaptive learning platforms, teachers will identify individual student needs and preferences, enabling them to provide targeted support and enrichment that caters to each learner's pace and requirements.

Despite the technological advancements, teachers remain crucial for managing sensitive discussions, both online and offline. While technology can offer anonymity and reduce initial discomfort, teachers are indispensable for fostering safe spaces for deeper discussion, addressing individual concerns, and providing emotional support, especially when sensitive topics arise. This requires adept management of hybrid learning environments.

Furthermore, teachers will play a vital role in addressing ethical considerations. They must educate students about the ethical implications of technology use in CSE, including crucial aspects like data privacy, algorithmic bias, and responsible online behavior.

Beyond academic content, teachers will continue to be instrumental in promoting life skills and well-being, guiding students in developing critical life skills, emotional intelligence, and overall well-being, often through interactive and immersive experiences facilitated by Education 5.0 tools.

Education 5.0 introduces complex digital tools such as AI, VR, and adaptive platforms, which require teachers to not only understand but also effectively curate, integrate, and manage these technologies within their pedagogical practice. This transformation means teachers are no longer just content instructors but become complex ecosystem managers – functioning as curators, data analysts, digital navigators, and ethical guides.

8. Initiatives of National Education Policy (NEP 2020)

India's National Education Policy (NEP) 2020 provides a strong foundational framework for integrating Education 5.0 principles into CSE. NEP 2020 introduces comprehensive reforms aimed at creating a flexible, inclusive, and multidisciplinary education system. A key tenet of the policy is its shift away from rote learning towards competency-based learning, fostering critical thinking, creativity, and lifelong learning skills. This aligns perfectly with the objectives of CSE, which aims to equip young people with the ability to make informed decisions and navigate complex social issues. Crucially, NEP 2020 explicitly recognizes the importance of integrating technology into education, promoting digital learning platforms, virtual labs, and the use of AI, VR, and AR for interactive learning experiences. This provides a clear policy mandate and a supportive environment for the adoption of Education 5.0 technologies within CSE. Furthermore, the policy advocates for skill-based education and early clinical exposure, areas where CSE can significantly contribute by developing essential life skills and foundational health literacy.

9. The Long-Term Impact of Education 5.0 on CSE in India

The strategic integration of Education 5.0 principles and technologies into Comprehensive Sexuality Education holds the potential to fundamentally transform how sexuality education is perceived and delivered in India. By empowering teachers with the necessary skills and tools, and by leveraging personalized, engaging, and accessible digital platforms, India can effectively overcome long-standing barriers of stigma, discomfort, and limited reach that have historically hindered CSE.

This transformation is expected to yield several profound long-term impacts to the young students in India. These impacts are:

- **Improved Health Outcomes:** Young people will gain access to accurate, comprehensive, and age specific knowledge, enabling them to make healthier and more responsible choices regarding their sexual and reproductive health. This comprehensive knowledge will reduce the rates of unintended pregnancies, sexually transmitted infections, and gender-based violence, contributing significantly to public health.
- **Enhanced Gender Equality and Rights:** Information regarding CSE, delivered through the inclusive and transformative approaches of Education 5.0, will foster a deeper understanding of gender equality, universal human rights, and bodily autonomy. This empowerment will enable young people to advocate for their own rights and to respect the rights and choices of others, contributing to a more equitable society.
- **Holistic Development:** Beyond sexual health, this integrated approach will cultivate critical thinking, problem-solving abilities, and emotional intelligence. These are essential 21st-century skills that prepare youth to thrive in an increasingly complex and interconnected world, fostering resilience and adaptability.
- **Reduced Stigma and Taboos:** The anonymity and personalized nature of digital CSE platforms can gradually erode deeply ingrained societal discomfort and taboos surrounding sexuality. By providing safe spaces for inquiry and learning, these technologies can foster more open, healthy, and informed conversations within families and communities over time.

10. Concluding remarks

The integration of Education 5.0 into CSE in India is not merely an improvement in educational delivery; it functions as a powerful societal catalyst. CSE aims to achieve broad societal goals, including improved health outcomes, enhanced gender equality, and the realization of human rights. Education 5.0 provides the tools for personalized, engaging, and accessible learning, and critically, it fosters critical thinking skills. The challenges to CSE are deeply rooted in pervasive socio-cultural stigma and a lack of open dialogue. By leveraging technology to bypass these traditional barriers of discomfort and stigma, Education 5.0 can normalize conversations around sexuality, democratize access to accurate information, and foster empathy and critical thinking on a mass scale. This, in turn, can accelerate progress towards broader public health goals, advance gender equality, and facilitate the realization of human rights across the population. In essence, this strategic integration uses educational technology as a potent lever for profound social change, ultimately shaping a more informed, healthier, and equitable future for India's youth.

By embracing Education 5.0 for CSE, India can nurture a generation of informed, responsible, and empowered young citizens who are equipped to navigate their sexual development with dignity, make healthy choices, and contribute actively to a more equitable and inclusive society.

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References

1. Agarwal, V., Verma, P., & Ferrigno, G. (2025). Education 5.0 challenges and sustainable development goals in emerging economies: A mixed-method approach. *Technology in Society*, *81*, 102814. <https://doi.org/10.1016/j.techsoc.2025.102814>
2. Ahmad, S., Umirzakova, S., Mujtaba, G., Amin, M. S., & Whangbo, T. (2023). Education 5.0: Requirements, Enabling Technologies, and Future Directions. *ArXiv*. <https://arxiv.org/abs/2307.15846>
3. Fousiya, O. P., & Saleem, T. M. (2024). Education 5.0: Nurturing Essential Life Skills for the Future Generation. *International Journal for Multidisciplinary Research (IJFMR)*, *6*(2), 1-6. <https://www.ijfmr.com/papers/2024/2/16511.pdf>
4. Gowda, R. V. M. (2023). Education 5.0: Evolution of Promising Digital Technologies – A Comprehensive Review. *International Journal of Advanced Science and Engineering*, *10*(2), 3422-3448. [10.29294/IJASE.10.2.2023.3422-3448](https://doi.org/10.29294/IJASE.10.2.2023.3422-3448).
5. Joseph, J. T. (2022). Comprehensive Sexuality Education in The Indian Context: Challenges and Opportunities. *Indian Journal of Psychological Medicine*, *45*(3), 292-296. <https://doi.org/10.1177/02537176221139566>
6. Rastogi, A., Mishra, H., & Agarwal, R. (2025). Education 5.0: Embracing The Future of Learning In India. *International Journal of Creative Research Thoughts (IJCRT)*, *13*(5), 295-305. <https://www.ijcrt.org/papers/IJCRTBC02043.pdf>
7. Sudiksha, Malik, P., Rawat, D., & Aarti. (2024). Sex Education in India: Need of the Hour. *Journal of Emerging Technologies and Innovative Research (JETIR)*, *11*(2), a461-a473. https://www.who.int/health-topics/sexual-health#tab=tab_2
8. https://www.who.int/health-topics/sexual-health#tab=tab_2
9. <https://www.assochem.org/uploads/files/Final%20Knowledge%20Report.pdf>
10. https://www.ohchr.org/sites/default/files/lib-docs/HRBodies/UPR/Documents/Session1/IN/YCSRR_IND_UPR_S1_2008_YouthCoalitionforSexualandReproductiveRights_upsubmission.pdf
11. <https://arrow.org.my/wp-content/uploads/2017/10/India-CSE-brief.pdf>

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