

REVIEW ARTICLE

Outcome-based medical education – A brief commentary

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ABSTRACT


Outcome-based education (OBE) is neither a new concept nor a passing phase in educational technology and is equally applicable throughout the educational continuum from primary school to postgraduate training. OBE emphasizes on the finished product or output and defines what the learner is answerable for any teaching and learning program. OBE does not pronounce how to teach or how to learn for teachers and learners, respectively. OBE has been introduced to undergraduate medical education almost two decades ago; the method has been implemented in different medical institutes and in number of countries of both developing and developed nation. Professor Harden claimed long before that OBE is a sophisticated strategy for curriculum planning that offers several advantages. Professor Jim McKernan claims that OBE shrinks teaching and learning to methods of human engineering and quasi-scientific planning procedures and that education cannot be regarded as an instrumental means to an end. No single educational and instructional strategy is totally faultless, and many are clouded with contradictions, inferences, indecision, and masked agendas. Finally, OBE approach is based on sound educational principles and provides a robust framework for students to acquire the necessary fitness to practice particularly to rectify irrational prescribing and promoting rational prescribing.

KEY WORDS: Outcome-based Education; Medical Education; Educational Technology

A FEW DEFINITIONS

“Outcome-based education (OBE) is neither a new concept nor a passing phase in educational technology and is equally applicable throughout the educational continuum from primary school to postgraduate training.^[1]” OBE emphasizes on the finished product or output and defines what the learner is answerable for any teaching and learning program.^[1] OBE does not pronounce how to teach or how to learn for teachers and learners, respectively.^[1] OBE is a procedure that includes the reorganization of curriculum, assessment,

and reporting practices in education to imitate the attainment of high order learning and mastery rather than the buildup of course credits.^[2,3] OBE concentrates to organize entire school’s programs, especially teaching and learning methods efforts that the clearly defined outcomes, meaning students will able to demonstrate their capability when they leave school.^[3] OBE is NOT a “program, a package, a technique, a fad, a quick-fix, a panacea, a miracle, or an event. It is a transformational way of doing business in education.”^[4] OBE is a development that emphasizes on whatever is to be learned - the consequences.^[5] The basic policies of OBE are changing the educational instructional strategy from “teaching to learning; skills to thinking; content to process; and teacher instruction to student demonstration.”^[4] The word outcome denotes what is the result of the certain teaching-learning sessions or program; meaning that what students have earned with regard to skill, attitude, and practice from that program.^[4] It is the result of educational program which is evident and distinguishable improvement

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and attainment of three qualities: “Knowledge, combined with competence, and combined with orientations.”^[4] “Education that is outcome based is a learner-centered, results-oriented system founded on the belief that all individuals can learn.”^[6] A learner-centered educational program that caters principally on the development of skill and changing attitude and practice are considered as OBE system.^[6] Outcomes are not considered as “values, attitudes, feelings, beliefs, activities, assignments, goals, scores, grades, or averages, as many people believe.” Archetypally, these are performances, students learn through their educational program. Students can reproduce three vital things: “What the student knows; what the student can actually do with what he or she knows; and the student’s confidence and motivation in carrying out the demonstration.”^[6] A well-defined outcome will have clearly defined content or concepts and be demonstrated through a well-defined process beginning with a directive or request such as “explain, organize, or produce.”^[7]

OBE IN MEDICAL EDUCATION

OBE is also known as competency-based education.^[8] OBE has been introduced to undergraduate medical education almost two decades ago, the method has been implemented in different medical institutes and in number countries of both developing and developed world.^[8,9] Although OBE can be traced back almost 80 years in the book written by eminent American professor and researcher Dr. Tyler who contributed enormously in the field of educational science.^[10] OBE is considered as “performance-based approach at the cutting edge of curriculum development offers a powerful and appealing way of reforming and managing medical education. The emphasis is on the product - what sort of doctor will be produced - rather than on the educational process.”^[11] Medical educations, possibly more than at any other time, “faces pressures for change in response to the rapid developments in medical and health-care delivery, advances in information technology, globalization influencing medicine and education, changing political and public expectations, demands from within the profession, and developments in how we look at teaching and learning.”^[12] The three indispensable criteria have been identified for any skilled and contemplative medical doctor.^[11] These are: (i) What the medical doctor can perform (“doing the right thing = technical intelligence”),^[13] (ii) how the clinician approaches his/her patients (“doing the thing right”^[11] = academic, emotional, analytical, and creative intelligence),^[12] (iii) the clinician as a professional (“the right person doing it= personal intelligences”).^[11]

SOME CONTROVERSIES WITH OBE

Medical professionals are losing their inner strength because of continuous attack, aggression on the profession, and due to

changed health-care system: The mean health professionals are controlled, whether they keep up to date, the way future doctors are building assessment, “your use of evidence, the way you make clinical judgments, the way you teach, the way you learn, and what you teach and learn, the way you manage your work”.^[14] The answers regarding these actual or imaginary problems, “are almost always imported from other fields of greater or less similarity” to medical education. Health and medical professionals “entertain each new importation, usually without evidence of its worth.”^[14] At much such importations “deskill, demote your professional judgment and professional culture as though there were something wrong or indefensible about having your own professional ways of doing thing.”^[14] Therefore, behavioral objectives or competences at no time pronounce can multifaceted human behavior. The sum of what authorities do is far superior to “any of the parts that can be described in competence terms. They are making judgments, managing cases in the absence of definitive information, taking a multiplicity of factors into account, dealing with each case on its own merits, almost never replicating precisely the same approach because every case is never exactly like any other.”^[14]

ADVANTAGES OF OBE

Professor Harden claimed long before that “OBE is a sophisticated strategy for curriculum planning that offers several advantages.”^[12] Moreover, OBE approach recognizes precisely what the medical students should be able to do once graduated.^[15] OBE stimulates and motivates a student-centered teaching–learning method and ensures better accountability and assert quality.^[15] Moreover, OBE also ensures and highlights the areas in the medical curriculum such as ethics, attitude, and newer issues of basic and clinical sciences including genetics which was earlier neglected in the traditional curriculum.^[15] Thereafter, medical educators, policy planners, and curriculum developers trust that OBE not only secures the precision of the curriculum but also initiates to rectify the dispute.^[11,16,17] The learning outcome is evidently defined, described, and specified in OBE-based medical educational method.^[15] Another study revealed that OBE approach ensures to master the necessary “soft skills such as ethics, responsibility, life-long learning, and knowledge on the current issues.”^[18] In addition, multiple studies reported that OBE troop significantly higher grade point average in their academic performance.^[19,20] Incorporation of OBE in medical education raises spirits of contribution and partnership with manifold disciplines and interest groups in preparation and executing such curriculum for medical students.^[21]

OUTCOME-BASED MEDICAL EDUCATION AND RATIONAL PRESCRIBING

“Patients receive medications appropriate to their clinical needs, in doses that meet their own individual requirements,

for an adequate period, and at the lowest cost to them and their community.”^[22] The notion of the rational use of medicines is an ancient one, dating as far back as 300 B.C, when the Greek physician Herophilus said that “medicines are nothing in themselves but are the very hands of god if employed with reason and prudence.”^[23] Again it has been reported that globally “more than 50% of all medicines are prescribed, dispensed, or sold inappropriately, while 50% of patients fail to take them correctly.”^[22] One web page claimed very recently that “irrational drug use: When we die not of diseases but from medications.”^[24] Irrational prescribing is a bad practice and it quite challenging to find an immediate remedy.^[25,26] Although globally there is urgent demand for the improvement in regard to rational prescribing and rectifying irrational prescribing.^[27-30] Thereafter, a number of studies reported that mediations short training course and workshop targeting to improve the quality of prescription.^[26,31]

Qualitative content analysis revealed that outcome-based continuing medical education (CME) among general physicians (GPs) in Iran effective in improving GPs’ competence toward rational prescribing. The study also suggested that OBE policy methods might be adopted to improve quality of prescription other settings both regionally and globally.^[32] Another randomized trial also reported that OBE is a promising method to improve medicine use GPs in primary care settings.^[33] An outcome-based method utilizing active learning principles was found more effective than traditional approach for CME for GPs to improve and ensure their knowledge, attitude, and practice toward rational prescribing.^[34] Another systematic review which comprises 47 studies all were targeted to measure at least one outcome of prescribing competency revealed that there was the definite enhancement of prescribing competency and performance in a wide variety of settings.^[35] One more study in Turkey quantified that the bulk of the medical students learned much better regarding pharmacotherapy teaching program and earned better-quality prescribing skills, and they also wished for to utilize acquired knowledge in their professional practice.^[36] These sessions were based on “problem-based Groningen/WHO model of pharmacotherapy” and the main outcome measurement was prescribing skills of medical students.^[37]

DISADVANTAGES OF OBE

Jim McKernan (Dean, Faculty of Education, University of Limerick, Plassey Technological Park, Limerick, Ireland) claims that OBE shrinks teaching and learning to methods of “human engineering and quasi-scientific planning procedures,” and that education cannot be regarded as an instrumental means to an end. Researcher utmost apprehension was the ostensible supposition that the structures of knowledge can be interpreted into pretentious outcomes or observable performances and belittles knowledge.^[38] “OBE treats knowledge as instrumental, a position that violates

the epistemology of the structure of certain subjects and disciplines. Some activities or educational encounters are worth doing for reasons other than serving some instrumental purpose to a predetermined outcome.”^[39] Those researchers are against OBE thought that education should be an open-ended and should not be controlled by outcomes.^[40] They also assumed that education should be considered for its own purpose, not should be guided by the outcome.^[40] They have faith in that defining education as a set of outcomes, creates an obstacle in the struggle of the wonderful, unpredictable voyages of exploration that illustrate learning through unearthing and autopsy.^[40]

CONCLUSION

No single educational and instructional strategy is totally faultless, and many are “clouded with contradictions, inferences, indecision, and masked agendas.”^[41] OBE is clearly “defined and detailed requirements to ensure medical graduates are fit to practice, and in this case fit to prescribe antibiotics to minimize resistance and maximize their effective and efficient use.”^[41] OBE endeavors to eliminate the “guesswork, to be open and explicit about what is required, creating a more joined-up approach.” Therefore, OBE “has much to offer institutions training health professionals.” The approach is based on “sound educational principles and provides a robust framework for students to acquire the necessary fitness to practice,”^[42] particularly to rectify irrational prescribing and promoting rational prescribing. Finally all educationists including medical must remember the very famous saying of Jerome S Bruner that “we teach a subject not to produce little libraries on that subject, but rather to get a student to think mathematically for himself, to consider matters as a historian does, to take part in the process of knowledge-getting. Knowing is a process, not a product.”^[43]

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