

Knowledge of data analysis as an advanced skill essential in “clinical governance” for non-medical health professions

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ABSTRACT

Data analysis for non-medical healthcare professions includes a wide range of operations ranging from data collection, management, processing, interpretation and representation in order to improve quality system of healthcare services. Data analysis allows us to understand whether the clinical studies and research carried out are supported by valid and sharable theories in the evidence-based decision-making process. The acquisition of skills in data management allows us to guarantee more appropriate and shareable treatments among the scientific community. Mastery of data analysis at the same time allows you to make informed decisions in line with the new legislative regulations in the field of health responsibility and safety of care.

In Italy, as in numerous other European Union countries, the process of modernization of society induced by political and social factors poses new challenges to the construction of information through the analysis of data in the healthcare area. Basic principles such as equity in access to care and the quality of services, now widely shared in modern societies, lead to increasingly specific policy demands (1). This progressive diffusion of a culture of appropriateness in healthcare, of the evaluation of political action and of rational government has accentuated the tendency to set up monitoring systems based on the collection of large quantities of data as well as their processing and interpretation. The cultural and professional growth of the non-medical healthcare worker has seen the transition from the service oriented towards an intervention provided in the form of “output” to one oriented towards the “evaluation of outcomes” (Outcome), with a strategic importance in reporting and objective quantification through an analysis and management of data in a congruous and rational manner (2). Knowledge of data processing as part of one’s advanced skills (3) is essential given the evolution in the socio-healthcare modernization process. Collecting, processing and interpreting data can be of support in various healthcare decision-making systems such as: in the organization of predictive mo-

dels of demand and expected consumption in services at the various facilities (average length of stay, mobility between services, discharges, technologies, aids, etc.), in programming capable of anticipating the needs of activities and processes as well as in risk management (4), (5) to have a vision of adverse events and restraints that have arisen (6). Data analyzes also allow us to measure the effectiveness of treatments and therapies, and if the therapies are leading to significant improvements (7), offer the possibility of personalizing treatment plans based on the individual needs of the specific case and the effectiveness of treatments (8). Correct collection, evaluation and interpretation of data can lead to new knowledge that can be applied beyond the limited empirical experience that produced it; so as to allow rational choices under conditions of uncertainty. The growing need for continuous professional updating, the expansion of the role of non-medical health professions into new areas, the continuous evolution of regulations and jurisprudence always requires new skills. This knowledge, however distant it may appear from the training background of non-medical healthcare professions, can now provide an additional tool for improving the appropriateness of healthcare management and assistance to guarantee the best quality of healthcare offered.



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