



# Factors for lifelong job retention among Swiss radiographers



P. Lehmann, N. Richli Meystre<sup>\*</sup>, N. Mamboury

University of Applied Sciences and Arts Western Switzerland (HES-SO), University of Applied Health Sciences (Haute Ecole de Santé Vaud, HESAV), Lausanne, Switzerland

## ARTICLE INFO

### Article history:

Received 24 April 2014

Received in revised form

21 September 2014

Accepted 12 November 2014

Available online 22 January 2015

### Keywords:

Job retention

Job satisfaction

Radiation therapist

Nuclear medicine technologist

Diagnostic imaging radiographer

## ABSTRACT

In Switzerland, a shortage of radiographers in the three radiology domains, radio-diagnostic, radio-therapy and nuclear medicine, is supposed to increase in the upcoming years. As job satisfaction has been shown to contribute to workplace retention, one purpose of the study was to explore the relationship between workplace retention and duration in the profession with job satisfaction.

The study was based on two surveys. The institutional survey was addressed to all chiefs of radiology units in hospitals and ambulatory institutes (340, response rate 48%). All radiographers were asked to complete the individual survey (3000, response rate 25%).

Two thirds of radiographers had been employed for five or more years in the same workplace, and nearly half intended to stay for 10 more years. The professional lifespan of radiographers is estimated to be approximately 27 years. 75% expressed their satisfaction with key aspects of professional activity, including the content of the work, autonomy, technology and their relationships with professionals and patients. These factors were not linked to a particular workplace, but to the profession itself. The radiographers build their own propitious work environment, even if salary and recognition by physicians are contributing to their dissatisfaction.

The retention in the profession, consolidated by a high level of satisfaction, is an essential feature for a workforce policy. However, active measures for reinforcing retention are still necessary when considering that a lifelong career needs challenges and rewards. Additionally, the retention rate does not provide a guarantee adequacy for the future projected needs in the profession.

© 2014 The College of Radiographers. Published by Elsevier Ltd. All rights reserved.

## Introduction

As a result of the expansion of radiologic technologies, departments of diagnostic and interventional radiology, nuclear medicine and radiation oncology have observed an increase in the demands for examinations and treatments. Many chief radiographers in Switzerland and the Swiss Radiographer Society<sup>1</sup> agree that there is a growing shortage of radiographers in the three professional arms that together constitute a unique profession in this country. But, as there is neither an updated registry, nor a generalised affiliation to the Swiss Radiographer Society, there was a lack of information until our national workforce analysis was published in 2012.<sup>2</sup> Only two papers were published about the situation of radiographers in Switzerland.<sup>3,4</sup>

There is limited international literature about the long-term retention of radiographers and job satisfaction, and all studies

have focused on only one specific professional arm of radiology (for instance only radiation therapists or nuclear medicine technologists). The following factors are contributing to job satisfaction: degree of control over their work environment,<sup>5,6</sup> job characteristics,<sup>7</sup> leadership style.<sup>5,8</sup> Occupational stress is common, and its major causes include the flow of patients, role conflict, heavy workload, working overtime and on-call.<sup>7,9–12,15</sup> The literature supports the link between job satisfaction and intention to stay in the workplace<sup>13</sup> and considers retention as the most powerful factor for reducing health workforce shortage.<sup>9,10</sup>

The University of Applied Health Sciences in Lausanne,<sup>a</sup> in collaboration with the Swiss Radiographer Society, conducted in 2011 a national study targeting radiology units and radiographers working in Switzerland with the aim to produce a workforce analysis of the radiographer profession. Special attention was given to the relationship between retention in a workplace or in

<sup>\*</sup> Corresponding author. Haute Ecole de Santé Vaud HESAV, Av. de Beaumont 21, 1011 Lausanne, Switzerland.

E-mail address: [nicole.richli@hesav.ch](mailto:nicole.richli@hesav.ch) (N.R. Meystre).

<sup>a</sup> Haute Ecole de Santé Vaud, HESAV, which is a part of the University of Applied Sciences and Arts Western Switzerland, HES-SO.

the profession and job satisfaction. An important issue was to determine whether actions contributing to job satisfaction and retention were sufficient strategies for countering the shortage of radiographers. The complete results can be found in the study report.<sup>2</sup>

## Background

In Switzerland, radiographers constitute a unique professional group made up of diagnostic imaging radiographers, radiation therapists and nuclear medicine technologists. This makes the Swiss situation different from UK and some other countries. The “trivalent” professional competence is based on a common undergraduate curriculum which includes the three radiology domains, so that the diploma allows radiographers to choose and/or to change the professional arm of activity. Some postgraduate courses are specific for one domain. Around a fifth of radiographers move from a domain to another during their working career. Swiss radiographers feel attached to the training in the three domains, and it contributes to their common professional identity. In this article, we use “radiographer” as a generic title.

Switzerland has 336 radiology units, spread over public (136) and private (112) hospitals, as well as in private institutes (88). Radiology departments provide services in diagnostic and interventional radiology (80%), nuclear medicine (13%) and radiation therapy (7%).

Based on our survey of the units' chief-radiographers<sup>2</sup> and from other sources,<sup>1,16</sup> the number of radiographers working in Switzerland can be estimated to be around 3000. When considering the entire health workforce, radiographers account for 0.6%.<sup>17</sup> Their number has increased by 25% in the 5-year period, 2006–2011. To cover the patient needs and support the technological developments, chief radiographers expect another increase of approximately 25% in the next 5 years.

## Theoretical model

In the vast array of literature regarding the occupational careers of health professionals, which mainly concerns nurses, the concepts of ‘job satisfaction’, ‘organisational commitment’ and their opposite, ‘occupational stress’, are associated with retention in the workplace or in the profession. These aspects have been described in articles concerning diagnostic radiographers,<sup>8,11–13,18</sup> radiation therapists<sup>7,14,19,20</sup> and nuclear medicine technologists.<sup>6</sup>

According to the self-determination model described by Edward Deci and Richard Ryan<sup>21</sup>, intrinsic motivation underlies behaviours performed for the interest of the activity itself, including curiosity and challenge; extrinsic motivation underlies behaviours performed to obtain separable rewards, including money and promotion. Deci and Ryan referred to the basic needs that enable the individual to achieve self-esteem and personal development: the need for competence, for social relationships and for autonomy. Self-esteem allows for professional identification and enhances retention in a workplace or in the profession. In the case of radiographers, it could be linked to satisfaction concerning work content and technology, level of individual autonomy in working processes and relationships between professionals and towards patients. In the context of French speaking research on caregivers, Conseil<sup>22</sup> and Werner<sup>23</sup> considered the abilities of “seeing” signs and symptoms, “understanding” them and “acting on” the disease process as important factors of self-esteem and professional identification for nurses. Mamboury<sup>24</sup> showed that the ability of looking inside the bodies of people in need of care makes radiographers different from all other health professions.

## Methods

In absence of a registry of radiology units and professionals, the only way to obtain information on this workforce was to ask the units' chiefs and the professionals in the workplace. The study was organised as two internet based surveys that aimed to cover the largest number of chiefs of radiology departments and of radiographers.

Both surveys were launched in 2011 in French, German and Italian. The chiefs' survey included information about institutional structure, domains of activity, technical equipment, radiographers workforce, working conditions, recruitment and turnover, specialised roles and chiefs' opinion about qualification level and workforce shortage. From the 336 units surveyed, we obtained 164 answers (48%). It was possible to compare the results with the dosimeter register of the Swiss Federal Office of Public Health.<sup>b</sup>

The individual survey asked for the content of activities and roles, the working conditions, the working career, initial training and continuous education, the level of satisfaction, the intention to stay in or to leave the workplace and the future working perspective. The dissemination of the internet link occurred via the units' chief radiographers and the 1800 members of the Swiss Radiographer Society. According to the estimate of 3000 radiographers in Switzerland, the 753 answers obtained represent a response rate of 25%.

Retention was measured by three elements: time in the profession until the survey period (retrospective duration), career intentions for the future (prospective duration) and overall duration of the occupational career.

The measurement of satisfaction of radiographers included 15 different dimensions commonly used in the literature.<sup>6,8,18,25,26</sup> We used five-level Likert scales, with item values varying from –2 to +2, and a general score based on the mean of all items.

The response rates of our surveys (48%, 25%) were in the middle range, compared to surveys of the radiology workforce in other countries.<sup>6,8,18,25,26</sup>

Both surveys were managed with the survey programme, Sphinx<sup>®</sup>, which also supports statistical analysis, including chi<sup>2</sup> correlation and variance analysis. Reminders were sent to units' chiefs and members of the Swiss Radiographer Society. The non-respondent bias<sup>27</sup> was controlled for by comparing the demographic characteristics of the respondents with the whole population. Due to the response rate of 25%, a generalisation of the results to the entire population of Swiss radiographers requires caution.

According to Swiss health and social research usage, there was no need to ask for an ethical commission approval as the study covered facts and opinions of professionals. Answering the surveys was interpreted as informed consent.

## Findings

The results represent 753 answering radiographers. The gender distribution showed 70% women and 30% men. The radiographers had an averaged employment percentage of 86%, with 96% for men and 82% for women.

The responding sample was composed of 63% staff radiographers, 18% radiographers with speciality or hierarchic roles and 19% who described themselves by their speciality or hierarchic roles.

<sup>b</sup> The national dosimeter register of the Swiss Federal Office of Public Health has the function of surveillance of ionising radiation exposure in occupationally exposed individuals. <http://www.bag.admin.ch/themen/strahlung/04474/index.html?lang=en>.

Download English Version:

<https://daneshyari.com/en/article/5881164>

Download Persian Version:

<https://daneshyari.com/article/5881164>

[Daneshyari.com](https://daneshyari.com)