Libyan Nurses and Their Training Needs: An Overview and Analysis of TNA as a Tool to Enhance Nurse Learning and Effectiveness

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Abstract-- **An overview of the concept of Training Needs Analysis (TNA), of existing research in related fields, and an examination of the current practice of TNA for nurses in Libya. The long-term goal is establishment of a research agenda to be implemented in HRM (Human Resource Management) policies for hospitals throughout Libya. TNA for nurses in Libya is as yet almost completely unexamined. Previous research which focused on nurse training in Libya did not focus on using a psychometrically valid tool to conduct TNA; follow-on research must also consider industry- and culture-specific factors which might affect the specific training needs of nurses or organizations.**

Keywords: Training Needs Analysis, Nurse Training, Libya, Health Care, Professional Development, Human Resource Management

I. INTRODUCTION

The performance of health organizations has been widely studied, with a focus on those factors arising from employment and environmental sources. Much work has been done to study the effects on functionality of work attitudes, such as job satisfaction and organizational commitment. Organizational commitment, in particular, has a compelling fascination for researchers, because of its impact on behavior at work and the quality of patient care: nurses' attitudes toward their jobs matter. In Libya, there has been growing interest in performance-related issues in health organizations, a reflection of the overall growing interest in qualitative improvement.

The largest human resources component in health care institutions is obviously nurses, who thus have the greatest impact on the quality of both outcomes and patient care. Properly-trained staff are vital to any organization in any industry, and workers provide the principal source of an organization's ability to compete**.** Training, then, can be seen to be essential in achieving organizational success, and can lead to the realization of measurable benefit to the organization. Raising the productivity of workers requires a considered and committed approach to systematic training - and investment in human capital in general - which helps to hire and retain the best-qualified workers and managers [34].

To review the needs for staff training, Training Needs Analysis is a systematic process which can be used to develop training curricula designed to facilitate employees' learning process. In the development of a comprehensive and suitable training cycle, this first stage (TNA) should be followed by design of training, the provision of training, and finally post-training evaluation.

The goal of this paper is to review existing research into training needs for nurses in Libya, as well as an overview of similar and related research in other contexts, to make the case that the Hicks' TNA tool would be a very useful way to approach the nursing crisis in Libya.

II. THE CONCEPT OF TRAINING NEEDS ANALYSIS

Training Needs Analysis is an important activity within HRM, defined as the systematic investigation and analysis of current performance levels compared to the organization's objectives, specifically looking at employees' ability and support networks [16, 49]. If adequate analysis of training needs is not performed, then obviously training may not be consistent with the organization's goals. Despite this, it is an often-overlooked process in most organizations, or at best is poorly or incorrectly implemented.

A note on usage: it would seem *ab initio* that training needs analysis and training needs assessment are more or less the same thing. Krugman *et al.* [37] considered them different. According to their study, needs assessment is identification of the performance gaps themselves, the prioritization of them, and dealing with the most important. Needs analysis, on the other hand, is the process of investigation of the reasons for the gaps.

Several studies have commented on the link between Human Resource Management practices and employee performance ([24], [46], [35], [17]). Harris *et al.* [24] outline several Human Resource Management (HRM) practices which have been shown to be positively correlated to performance in the organization, among which, of course, is staff training. A Canadian study [17] looking at key retention strategies identified professional development as an important one. This study reported that educational opportunities were very highly valued by participants, with most dissatisfied with their organization's available resources for further professional

development. Most of the capabilities a firm possesses can be directly linked to human capital [9].

Nankervis *et al.* [45] suggest that most organizations (commercial and non-profit) are generally weak at assessing training needs, or do not perform this evaluation phase at all. Another study [8] found that within the organization studied, only one in four of the participants received "growth-oriented training" in the preceding two years, despite "growth" being one of the main objectives of the organization.

Denby [16] studied the potential benefits of a comprehensive Training Needs Analysis, and presented a case study of an organization which registered a productivity increase of 56%, through implementing improvements recommended to the firm based on the TNA.

This suggests that Libya is not alone in being a place where there is insufficient practice of effective TNA action. Untapped TNA could thus be a source of otherwise inaccessible benefit to an organization. Appropriate use of TNA can prevent unnecessary spending on improper, inefficient, and/or ill-targeted training programs, and maintain tighter focus on programs that will actually move the firm toward its objectives, while also helping to save time and money invested in new employee acclimatization, by retaining already adequately (and often expensively) trained personnel.

There are still many organizations and industries with insufficient implementation of Training Needs Analysis, and to which therefore these benefits are as yet inaccessible. The TNA process is often seen as too costly in both time and money. This highlights the need for new research on TNA, not only to be able to better demonstrate its cost-effectiveness and potential benefits, but also to assist in the ongoing development of TNA practices and procedures, with the goal of maximizing the return on invested time, effort, and money, to both the organization and employee alike.

TNA, then, is a continuous process, first gathering data to determine training needs, then using that data to design training to help the organization accomplish its objectives [13]. Thus, only when the training needs and the content of training match, will improvements to performance of the organization be realized.

III. TRAINING NEEDS ANALYSIS APPROACHES

Although there is a pressing need for more research into training needs, there are many models in current practice that can help guide the TNA process. Much organization-level training is still being conducted today in a conventional and mechanistic approach to adult education, introduced more than two hundred years ago [6]. This mechanistic approach is to a large extent focused on job behavior and task analysis, using quantitative data and formal interviews to gather information. This approach is very thorough and often expensive, and can struggle to keep pace with ever-present change in a modern organization, as gathered data becomes too rapidly irrelevant and outdated. Anderson [6] argues that in the rapidly changing modern commercial environment, and with high-pace operations, TNA needs to be more adaptable, and to account for unplanned learning.

In fact, one of the deficiencies in the traditional training approach is a tight focus on predetermined outcomes, which tends to neglect the very possibility of unplanned learning occurring. This understanding led Anderson [6] to recommend a proactive approach to training needs. In this approach Anderson argues that "training should be considered as a proactive process that anticipates future trends and changes, and which prepares people to meet them." A proactive approach to TNA aims to help individuals to actively seek ways to develop their own skills, in addition to producing better-quality work, and better quality of life while at work. Anderson suggests this approach should motivate using the TNA to look at achieving efficiency in the future, rather than dwelling on past shortcomings.

Leat and Lovell [38] support the idea that there are flaws in many of the traditional approaches and propose that a full and proper assessment of training needs requires merging analyses performed at multiple levels of the organization.

Chiu *et al.* suggested [15] a new model for Training Needs Analysis, which proposed an answer to four questions:

i.   Who are the main initiators of the study of training needs?
ii. What levels are to be studied?
iii. What are the methods used?
iv. What is the intended purpose of the analysis?

This then would allow derivation of a desired outcome for the TNA. Chiu's approach also considers three different approaches for TNA: centered on the trainer, on demand, or on supply.

While this approach can help the training coordinator to choose the optimal approach to achieve the desired results, it provides no suggestions on how to make the TNA be comprehensive and effective. If the TNA is insufficient in scope or effectiveness, this leads in turn to a less than useful training opportunity being developed. However, this model is useful "in directing further research in Training Needs Analysis, and can help with the classification of future studies" [15].

Al-Khayyat [4] suggested a different, six-step modeling process:

i.   planning;
ii. data collection;
iii. development of the data collection cycle;
iv. implementation of data collection;
v.   data analysis/training plan development;
vi. evaluation and feedback.

This approach allows for the incorporation of various data gathering techniques for a complete and thorough TNA that helps in identifying the training needs, and also evaluating the training outcomes [4]. Higher costs and higher demand for scarce resources highlight one major difficulty with this approach: it is very expensive and time-consuming to implement. This model may not be an appropriate choice for a standard for-profit commercial organization, having been designed for public/nonprofit institutions.

In Eighteen [19], a software package called "TNA 2000" was identified, which purports to automate much of the design of training programmes, tailored to the individual institution using it. This can lead to as detailed a model as an individual training plan for each staff member, but still has the cost that each organization must carefully configure the program for their particular needs and situations. This means that a tool such as

this, while useful, is not a panacea, but merely a part of the process.

IV. Psychometric Validity of a TNA Implement

Hicks *et al.* [31] posited that a growing demand for professional updating and training within the health service has created a proliferation of post-registration courses, many of which fail to reach appropriate personnel, or the real training objectives of the participants or their managers.

Hicks and Hennessy [30] are the leaders in research into TNA for nurses. Current TNA, and training and development processes used in the healthcare profession, have been ineffective in helping nurses acquire and develop the skills they need for optimal performance. Hicks and Hennessy believe that for a valuable and valid TNA, the data collected must go beyond "eliciting un-prioritised wish lists from respondents, and instead produce a data set that reflects the perspectives of both the organization and of potential participants of future courses." This is similar to the results found by Bowman and Wilson [12] posit that a quality TNA may need to vary from a cheap and cheerful canvassing of opinions about what is needed..

Noting the absence of a valid and reliable method for performing TNA, Hicks *et al.* [31] developed a "psychometrically valid TNA tool for use with primary health care teams. This instrument was shown to have validity and significant reliability, and is unique of its kind". This tool should be psychometrically valid and reliable, and should establish its value in identifying both organizational and individual training needs and developing training strategies. In this case, a 30-item questionnaire was developed and implemented, in which participants were asked:

   i. how important certain tasks were to successfully performing their jobs;
   ii. how well they currently performed these activities;
   iii. whether training would be likely to improve performance of these activities.

Additional value in the tool comes from its ability to be modified to suit different scenarios, purposes and cultures without compromising its high validity and reliability. The scale developed by Hicks *et al.* [31] goes deeper than simply the perceived needs for training, and through four constructs looks into how tasks are currently performed as well as the appropriate mode of intervention.

The first of these is the "Occupational Profile" factor. This is used to measure the perceived importance that particular activities have in the successful performance of nursing. Researchers in a number of countries and contexts use a measure of the perceived importance of specific factors in successful performance in the evaluation of the importance of different tasks for successful performance. The second is "Current Performance". This is a self-assessment step, where the employees rate their ability to perform a given task. The other two constructs address the degree of involvement of each mode of intervention, namely training and organization change.

A proposal for required training can only be improved by understanding the underlying dimensions, which means this scale can be used to help identify where performance levels are low, which leads to training needs being more readily identified, and thus met with minimal waste of time and money.

V. Public Health Care in Libya

There were 97 hospitals, 37 polyclinics, and 535 health centers functioning [39]. The World Health Organization, after a study in May/June 2011, reported that the primary health care system has been "shrinking and collapsing" in recent years, leading public hospitals to operate as primary health care facilities. The majority of Libyans are turning to hospitals as a first contact for health problems, rather than polyclinics or health centers [54]. The same study [39] found that all Libyan people can access local health care services, but had no information about access to services for mental health. It has been reported that Libya has been educating a surplus of doctors, with 15,000 current medical students – as against just 9,000 practicing physicians - serving a population of about 6 million [42]. While general medical services are well-supplied, medical specialists (such as pharmacists) are being under produced.

The impact of the recent conflict on the health care system has been serious, through damage to infrastructure and compromised availability of medical equipment, supplies, and medicines. Flight and absenteeism has also led to a lack of medical staff. The World Health Organization (WHO) says that before the conflict, 16% of the doctors (1,618) in-country were foreign workers. Similarly, a large numbers of nurses were historically recruited from other countries. According to a survey [42], there were 2080 foreign nurses/midwives working within the health care field in Libya.

This focus on in sourcing foreign nurses, starting in 1980, has been influenced in part by the national trend toward "outsourcing to experts". As a result, the perceived value and effectiveness of Libyan nurses were deprecated, leading them to be increasingly excluded from hands-on patient care. When the conflict started, foreign nurses fled, leaving behind a critical shortage of nurses; today, nursing is often seen as the lowest possible rung on the professional ladder, functioning as "white-coated mop handlers". Alongside the flight of the foreign workers, with the beginning of the conflict absenteeism among medical staff of the hospitals and clinics became an understandable but serious issue. For example, in one Tripoli psychiatric hospital alone, 165 Libyan nurses (of 177) were absent for periods of time since the conflict began. Many medical students volunteered for nursing roles to fill in the gaps, and some organizations, both state and non-governmental (including IMC), were able to bring in short-term volunteer doctors and nurses from other Arab countries, such as Jordan, but this is obviously not a viable long-term plan for a stable country's health care needs.

There is no formal training for psychiatric nurses in Libya. A three-year course in psychiatric nursing had been offered, but this program was terminated in 2008. There are also reports showing a strong need for nurses working in psychiatric care to build skills and training in best practices, as well as putting an end to practices that are potentially harmful (such as improper use of restraints, isolation, and lengthy lockdowns).

VI. Training Needs Analysis for Nurses

It is clear that there is currently no consideration, as managers have indicated, given to analysis of the training needs of staff.

This problem has often been found in other Arab-speaking countries, where many researchers find that many organizations lack effective approaches to determining the needs of MTD [7]. TNA for organizations, jobs, and individuals is a useful and effective way to begin rectifying this deficit.

In the health care sector in general, and with regard to nurses specifically, it can be difficult to conduct a thorough and consistent TNA. While dealing with a nursing shortage, it can be very difficult to ensure consistent access to training and trainers, especially as training for nurses is seen as a low-priority item in a health-care system in crisis. That said, nursing, and the health care sector generally, appear to be below average when it comes to developing and implementing strategies for TNA. Gould [23] found that of 266 articles on TNA, only 23 contained empirical findings, and most of these were conducted in the United Kingdom. It cannot be too strongly stated that there is a serious and urgent need for empirical research in this field, to provide a greater understanding of the process of TNA and the potential benefits that could accrue to an organization with a better understanding and implementation of appropriate TNA in the training and development cycle.

Further, Furze and Pearcey [21] reviewed nurses' continuing professional development, and found that implementation still tends to be poorly funded, incomplete, and inequitable, and that cycles of training were often abandoned before completion.

Two important concerns regarding TNA in health care were raised by Gould *et al.* [23]: first, that TNA must be used strategically and committedly if its maximum benefit to the organization and the individuals involved is to be achieved. Second, participants highlighted the need for further research in application of Training Needs Analysis in health care, particularly with regard to nurses. High turnover in nursing positions leads to recruitment difficulties in nursing, and amplifies the need for Training Needs Analysis to be used appropriately [23].

Implementation of TNA in health care is often overlooked or underserved, and can even raise barriers to participation which render it worse than ineffective. One study (in Ireland – [44]) found that nurses said the main reason they didn't pursue professional development was a lack of support from their employers; although the participants do understand and accept the positive results, they believe that continuing professional education is essentially job-related activity, and thus the responsibility of the employer to organize and make available. In effect, nurses who want to continue their education and training don't, simply because the organization does not provide enough support.

A different European study [57] showed that low job satisfaction was the result of an unsupportive workplace and poor leadership within healthcare organizations, and that this in turn increased the probability of nurses intending to leave within one year – costly turnover in a skilled profession. The need to have appropriately trained staff is acute, and this in turn requires a sufficiently-effective TNA to ensure that employees are suited for and competent in their jobs, and are able to build the competencies they require in their workplace through appropriate training.

Despite the obvious benefits of TNA, health care (and nursing particularly) has not yet embraced or implemented the process of TNA properly so as to maximize the potential benefits.

Gould *et al.* [23] concluded in a literature review that "smaller scale (micro level) TNA concerned with staff in a single organization (or similar smaller organizations) emerged as the most useful in practical terms as well as having the most to contribute towards theory." On the macro level, across more than one large organization, the TNA was unable to effectively address organizational goals and training needs.

MTD needs are that which exists between what a given job actually requires in skills, and the skill set the current employee possesses. That is to say, Training Needs Analysis is the process of starting to fill the gap between actual and ideal skill sets; any and each employee lacking the knowledge or skills to perform satisfactorily at an assigned task is a part of the cumulative MTD needs.

To determine the MTD needs of the organization, Torrington and Hall [56] propose four questions:

i. What are the objectives of the organization?
ii. What tasks must be completed to achieve these goals?
iii. What is the behavior necessary for every employee to accomplish the tasks set for them?
iv. What shortcomings, if any, are there in current employees' skillsets, knowledge, or attitudes, required to perform the necessary behavior?

MTD needs assessment can happen in many contexts: new hires, promotions, continuous improvement, and dealing with industry and/or organizational change are just a few examples. To achieve this in a timely manner, then, requires a clear assessment of MTD needs. According to Boydell [10], Stanley [55], and others, in order to design acceptable MTD programs which will satisfy the needs of both the organization and its people, MTD needs assessment should be based on analysis of the organization, its operations, and its individuals, using appropriate techniques that are useful and can gather information sufficient to assess and correct any problem with regard to these items.

There are three levels of a training needs assessment.

A. *Organizational assessment*

This is the level for determining what overall needs there are within the organization, for example, at what level, or in which department, or division, or group of occupations. The organization's goals, operating environment, and/or human resources can be the focus of analysis.

B. *Operational assessment*

At this level, TNA needs systematic collection of data about a particular task or set of tasks, to determine the knowledge, skills, and attitudes required to perform certain duties relating to a specific job.

C. *Individual assessment*

People, of course, are all different. Specific individuals have specific strengths and weaknesses, idiosyncratic sets of knowledge, skills, and aptitudes. Therefore determining the nature and type of individuals who will participate in the training early in the process should help make the MTD more effective. Objective records, and situational and observational measures can be used in this analysis. Several information-gathering strategies can and should be employed, including interviews, observations, analysis of documents, and

questionnaires. Selection of technique depends on many factors, such as cost and difficulty of data analysis, as well as the opportunity (or lack thereof) of following up on any responses.

Taking the following considerations into account will make collecting the TNA data more effective:

i. Optimization of the amount of data;
ii. Ensuring that collected data are accurate and reliable;
iii. Collecting data in a way that helps to create a positive attitude toward the training program [58].

Self-evidently, getting the managers onboard is an important factor in their success. MTDPs' effectiveness can clearly be influenced by their success in identifying MTD needs, because of the important role that needs assessment can play in:

i. identifying individuals who must be trained;
ii. designing MTDPs that relate to the needs of both individuals and organization;
iii. outlining the required time;
iv. determining objectives and required skills;
v. required resources for MTDPs can be identified.

All of this leads to reduced costs. Also, TNA can be more effective if companies take into account the work environment, because these programmes can be adversely affected by many factors, even if they carry out the TNA correctly, as noted below:

vi. external environmental, those factors over which the organization has no direct control, including social, cultural, political, economic, technological, and demographic;
vii. specific environmental, most of which can be subjected to some influence, including suppliers, competitors, customers, and pressure groups;
viii. internal factors, within the organization, including employees, trade unions, et c..

VII. FACTORS AFFECTING NURSES' TRAINING NEEDS

Recent studies [51], [14] have shown there are many elements that can influence the training needs of an employee, including gender, experience, marital status, and role awareness. Burke's [14] study of professional services firms looked at how men's and women's training needs might differ, and found that only in the focus groups did the difference appear: though their needs were similar, the focus groups revealed women rarely receive training in certain areas, and thus rarely found that their training needs were addressed.

Burke [14] also found significant differences between the training needs of individuals at different levels. Each group in the study reported different training needs (the study looked at four levels: partners, managers, professionals, and administrators). Though this study looked at only two of the factors that may affect training needs, and found that the training needs of the individual can be vastly different from the perceived "organizational training needs", through factors such as gender or organizational level.

Many factors can affect the competencies of nurses and thus affect their training needs, according to [51]. Their studies, based in Japan, began by looking at such factors as gender, age, experience, educational background, and affiliations with other organizations (such as trade unions or government), and how each affected participation in job training. In this study, they found the factors that had the greatest impact on professional qualifications were experience, marital status, participation in off-job training, and experience in changing jobs or shift rotation. Saiki *et al.* concluded [51] that "the development of well-established professional competencies will depend on an organization-level approach, and the establishment of systematic continuing education." The conclusion is that organizations should develop a strong and ongoing cycle of TNA and training, to help build and maintain good professional competencies in their employees.

According to a study in China by Zhao *et al.* [61] showed that both internal and external factors will affect the success of training programs. "Internal factors refers to issues affecting the design and implementation of the training program, and external factors refer to issues pertaining to the training climate of the organisation." This research looked at the role of internal and external factors in training effectiveness, and which internal and external subfactors had the best correlation with training effectiveness. The study inquired into training effectiveness from the employee's perspective, finding that external factors had the greater impact on training effectiveness - results showed that the "work environment, and the extent to which managers motivated and encouraged employees to acquire learning, were significantly related to the employee's perception of the training effectiveness."

These studies show how important non-training-related factors were in the process. Studying factors such as gender, job rotation, and internal and external influences help determine overall success of an organization's training.

In recent studies and earlier research, job performance was consistently found to be positively correlated not only with overall job satisfaction, but also other satisfaction ratings, including with the job itself, supervision, relationships at work, pay and promotion opportunity, and work conditions ([36]. [11], [53], [33]). There is a strong influence on performance of relationships at work, including feeling appreciated by patients, cooperation among staff, and of physicians' demonstrated respect towards nurses and the decisions they make. Previous researchers have also found that perceived social support enhances job performance [2], as does patient recognition of nurses [20].

Nurses tend to be people who find the nature of the job both inherently satisfying and positively correlated with performance, which indicates that satisfaction with the amount of variety and challenge in one's job actually influences performance. The feeling of importance - both in self-esteem and in the eyes of others – of one's job, the recognition of one's own competence, and the freedom to make job-related decisions, are all positively related to performance.

Organizational commitment also positively correlates with job performance, which confirms findings by prior researchers [5]. Increased loyalty, then, leads individuals to work harder, which in turn increases productivity and performance [60]. Samad [52] found several factors can affect the positive relationship between performance and commitment, among them work conditions, salary, relationships with colleagues and supervisors, organizational policies, level of achievement, nature of the job, job security, and possibility of growth.

VIII. USE OF THE TNA TOOL INTERNATIONALLY

Hicks' TNA model has been used successfully in the UK numerous times at different levels and in different contexts [25], from use in identifying training needs and developing trends related to demographics, to evaluation of the overall strategies for training of primary health care workers at a national level. Besides the UK, the tool has successfully been used in such widely differing countries as Greece, Indonesia, and the USA.

Hicks and Hennessy's [32] comparative study was one of the first in Australia to look at training needs for nurses. They also conducted a second study in Australia with their TNA tool, in a Victoria nonprofit hospital for a group of forty-six nurses. The results showed a skills deficit in the research area, but it was determined this was important to the nurses' role. Other areas with notable training needs included communicating with patients and families, and supervision training. Since the focus of this study was to define the role of a nurse practitioner, rather than particularly on the training needs of the nurses, but other studies have shown reliable and valid results in other Australian contexts.

Results from deployment of the tool in Indonesia, where the focus was on identification of category/role identities, found that "significant differences in job profile were found in nurses from different provinces" [26], [27], [28]. This confirmed that geography had an influence over the nature of the roles, and thus the training needs, of the nurses.

The tool developed by Hicks and Hennessy [30] has shown it is amenable to use in different ways in two distinctly different cultures, while retaining reliability and validity. This suggests the tool is robust and valuable, and that there is a wide array of possible uses for it.

Since the questionnaire has been shown to be robust to differences between countries and cultures, it can also be used for comparative studies. Hennessy and Hicks [29] did a study to examine the use of the questionnaire in different international contexts. They hoped that it might "aid collaborative activities and shared nursing developments, especially through global IT network teaching programs. This study found:

i)   there are no universal trends in training needs according to the location of practice;

ii) training requirements are specific to the actual role performed and organizational environment;

iii) these must be assessed on a regular basis before education is commissioned in each of the countries.

This study emphasized that TNA should be performed regularly, and at a local level. Unfortunately, this is not a common practice in health care. Training needs for nurses will vary between and even within organizations, and thus if they are carried out at an international level, they are unlikely to be useful or relevant at an individual level.

This study also compares between countries, but without use of figures it would be difficult for the results of this study to be applied to any one country or organization. For example, the with regard to teamwork, "US primary care nurses reported lower training needs than the remaining groups" [29]. This statement gives very little indication as to the training needs of each group, simply that one group's need is lower than the others', but there is no elaboration to describe by how much, or if any other group does have a significant training need. Frankly, as yet there has been very little empirical research done on TNA.

There is a serious shortage of nurses in Libya, and there is very little funding and resources available for the training of more and better nurses, despite the new government's best efforts in trying to cope with the shortage of nurses in Libya. Pascoe *et al.* [48] looked at what nurses felt were their own training needs. Of 222 participants: over 90% said clinical tasks; 94% said communication and teamwork; over 75% identified management skills.

The one most common reason for these unfulfilled training needs was lack of time – professional development falls behind work and personal commitments [48].

There are some well-known and internationally common issues currently facing the healthcare sector, particularly in relation to nurses. Worldwide nurse shortages mean that existing nurses are overworked and fatigued, and lack of time and energy for training programs are a contingent result of this, making TNA an extremely important topic. Libya needs national training standards and a credible accreditation process, so that through quality training programmes, a responsive and sustainable nursing workforce in primary care can be developed.

IX. PROFESSIONAL DEVELOPMENT

Human Resource Development's importance derives from its role in facilitating the social and economic development process, recognizing that people are the common factor on both ends of the process of development of training programmes. On a national level, development of human resources should be only one part of an overall development programme with the goal of creating employment opportunities for the national work force. There is a clear need to develop the skills of that work force using the best methods, so that the required quantity and quality of workers can be prepared to contribute to the economy at a given time.

A widespread concern is that current practice of TNA for nurses is so limited, however in Libya the need is especially acute, given the issues noted above with the recent conflict, and its effects on both absenteeism and outright flight. There has been few research conducted into the training needs of nurses in Libya. Researchers have focused fairly tightly on the more lucrative oil and financial sectors.

X. CONTRIBUTIONS OF THIS STUDY

The minimal literature available on TNA for nurses in Libya shows the urgency of development, within the healthcare industry, of a TNA model for workers, especially nurses. After looking at the development and some deployments of the scale developed by Hicks *et al.* [31], the author strongly recommends future research into the training needs of nurses using this scale. Any such study can only help make up the very apparent deficit in this area. In resolution of some of the problems faced by Libyan nurses, this should lead to improved outcomes, which must be the primary long-term goal of any health-care system.

With regard to implementation in hospitals, appropriate TNA leads to efficient and targeted training programs and organizational change models, as each part of the tool is used to

identify the level of performance, the areas in need of change, and the most appropriate mode of intervention. The literature makes clear that this is an area where hospitals have not always had effective policy [23], [45]. Being able to readily identify suboptimal performance in specific areas will have an important impact on human resource development, leading to training programs tailored to meet the specific training needs of nurses within Libyan hospitals.

This is not to overshadow the implication of identification of whether the best remedy for a given issue is organizational change rather than training. Sometimes the important choice with a given training is not to train, such as when organizational change could substitute effectively with development of policies and procedures that will ensure more appropriate administration of the hospital and improved performance of nurses. Seeing these factors clearly will help the health care industry run more efficiently, leading to happier staff, better performance, and perhaps most importantly, better health outcomes. This can lead in turn to knock-on benefits such as lower absenteeism and staff turnover, improved organizational commitment, and overall a more productive workforce, which establishes a positive feedback loop of improvement.

An important secondary effect is that with effective TNA, only useful training is implemented. This will in turn help to ensure successful nursing, and improve the overall efficiency of HRD throughout hospitals within Libya. Thus using the scale developed by Hicks *et al.* [31] in the Libyan context can potentially provide many benefits to hospitals, in ensuring that training and development programs are effective and beneficial to both the individual and the organization. This may subsequently help address some of the issues that have arisen in previous literature.

Furthermore, understanding the impact of organizational and demographic variables on the effectiveness of training ensures human resources managers are able to monitor, evaluate, and improve performance of staff, with a deeper, holistic understanding of the implications. This could then potentially lead to training programs being more effective in design and implementation, and reducing time, money, and resources being wasted on unnecessary or ineffective training programs.

XI. FUTURE RESEARCH

Future studies on TNA for Libyan nurses should begin by conducting a TNA using a tool which has been tested for its validity and reliability. Addressing how factors such as qualifications and education of the participants may influence training needs will be essential. This will begin to make up the deficit in empirical research in this context, and suggest and promote further research to give a deeper understanding of this topic as it applies to Libyan nurses and the organizations for which they work.

A TNA model that is flexible and meets the specific needs of nurses in Libya will improve HRD throughout Libyan hospitals, and can be used for individual development of staff, as well as group and team-level training programmes. The author believes that a process of clearly identifying training needs through the use of this tool will assist with the development and implementation of training programs, and help to eliminate the time and money wasted on unnecessary training.

These potential benefits can be seen in the results of many Libyan studies performed in other fields (e.g., [59], [3], [22]. [34]), as well as other studies which were done in Arabic-speaking countries, such as those by Atiyyah [7], Durra [18], and Abdalla and Al-Homoud [1], and in other countries (Greece, for example) by Papalexandris [47]. This study also found that seemingly innocuous incentives can sometimes interfere in unintended ways: employees look for opportunities to attend training whether they need it or not, because of the provision of a training allowance while attending training, or sometimes the courses form an essential part of the promotion process, and are seen as chance to be paid for light duties. Therefore, employees are motivated by receiving the allowance and the potential for promotion, rather than by receiving useful training that enables them to be more effective at their jobs.

XII. CONCLUSION

The following recommendations are made, based on the review above.

First, TNA affects every aspect of training programme design. Practical approaches are likely to have the greatest effect, by taking into account the context in which the employees work, and by selection of better-qualified managers who are responsible for such activity.

Second, there is a clear need for organizations to establish effective relationships with specialists in management training and development, so as to benefit from their experience and training-specific resources.

Third, more effort should be paid to all aspects of training programmes, including TNA, starting with more research in this area. In this way, the country, its organizations, and their employees will become more aware of the value of this activity.

One very strong finding is that developing and implementing effective supervisory skills is seen as essential to encouraging professionals to higher performance. Both financial and non-financial incentives should be considered when designing retention strategies, given both the difficult and sometimes unpleasant nature of the work and the need to retain qualified nurses, with the worldwide shortage thereof. Work conditions in nursing need to be re-examined to find ways to motivate nurses to better performance – this can include hours, shift schedules, and policies. The physical environment should be examined for potential areas of improvement, incorporating up-to-date ergonomic design.

Professional development of nursing staff should be a priority for human resource policies. Effort should be directed towards enhancing initiative and creativity, alongside giving access to the latest job research information, learning resources, and ongoing training.

The relationship between nationality and job performance is an important one, and suggests it is important to recognize the impact of national culture on work attitudes. Efforts should therefore be directed at creating a high-performance culture based on empowerment, with effective open communication and respect for cultural differences. As in most modern countries, cultural diversity is an important consideration for Libya's health care sector; organizations need to adopt effective human resources strategies that aim to improve commitment and retention of qualified workers.

When considering the results presented in this study, the reader is advised to remember that all measures used are based on self-reports, with all the well-known issues that such a data-collection strategy entails. Rather than a roadblock, though, this can be seen as an opportunity for future research on factors with an impact on performance in Libyan health organizations.

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