

SAHK

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Abstract: With increasing interdependency in contemporary rehabilitation, effective team collaboration is crucial. As a rehabilitation organization, it is important for us to identify and disseminate our critical K assets to all staff members. The Spastics Association of Hong Kong (SAHK) has developed a knowledge management (KM) system that is incorporated into the frontline's daily operation for improving work efficacy and quality assurance.

Introduction

Contemporary rehabilitation emphasizes holistic consideration of the all-round needs of individual patients and their empowerment. It calls for coordinated and interdependent rehabilitation plans made by different professional disciplines. Close communication and collaboration among specialists become indispensable.

Recent revolutionary changes in the social welfare subvention mode of the HKSAR Government have made NGOs realize that solely focusing on input enhancement and professional upgrading are not sufficient for their own survival. With the introduction of the Funding and Service Agreement and the Service Quality Standards by the Social Welfare Department of the HKSAR Government, proper documentation and objective outcome measures become an integral part of the NGOs' operation. Trade-off between client contact and paper work is painstaking in management. In response to the ferocious service bidding, organizations tend to heighten their performance output that may eventually jeopardize the service quality.

As a rehabilitation organization with the quest for world class rehabilitation, an indiscriminate increase in performance output has never been our competitive edge. In SAHK, knowledge (K) is a key asset. To face the new challenge, we turn our attention to the identification of our critical K assets and disseminate them accordingly to our staff at different levels via efficient and cost-effective means.

Our Corporate Culture

SAHK was established in 1963 with the mission to assist persons with neurological impairments and to develop and maintain services for their education and welfare in a holistic manner. We aim to develop our clients' potentials, to maximize their independence and self-reliance, and to enable them to become participating members of society.

The Association has adopted the Conductive Education (CE), a Hungarian rehabilitation model for the neurological impaired, in its services for more than 2 decades. CE serves as a common philosophy sharing among different staff disciplines including social workers, occupational therapists, physiotherapists, speech therapists and nurses, together with child care workers in the

pre-school services, teachers in the schools and workshop instructors and welfare workers in the adult services. This common philosophy facilitates different specialists to agree at a unified view to the multiple needs of our clients in physical, cognitive, language and communication, social and self care aspects. The subsequent training and educational programs are then planned by different specialists in a well-coordinated manner and implemented accordingly by all levels of staff. This is known as a transdisciplinary approach. Thanks to the adoption of CE, our core staffs are accustomed to collaborate across their professional boundaries with a culture of sharing and harvesting K among themselves.

Since our clients are persons with life-long disabilities, our services range from pre-school to employment and residential services to cater for their different needs at various stages of life. In the past 10 years, the Association has implemented a series of integrated curricula in its preschool and adult services for facilitating the transdisciplinary operation. The operation of the integrated curricula is essentially based on a generic model (figure 1). It serves to standardize the assessment and program planning procedures and to quantify as far as possible the performance of our clients in different areas. These measures are important steps towards a result-oriented, evidence-based practice.

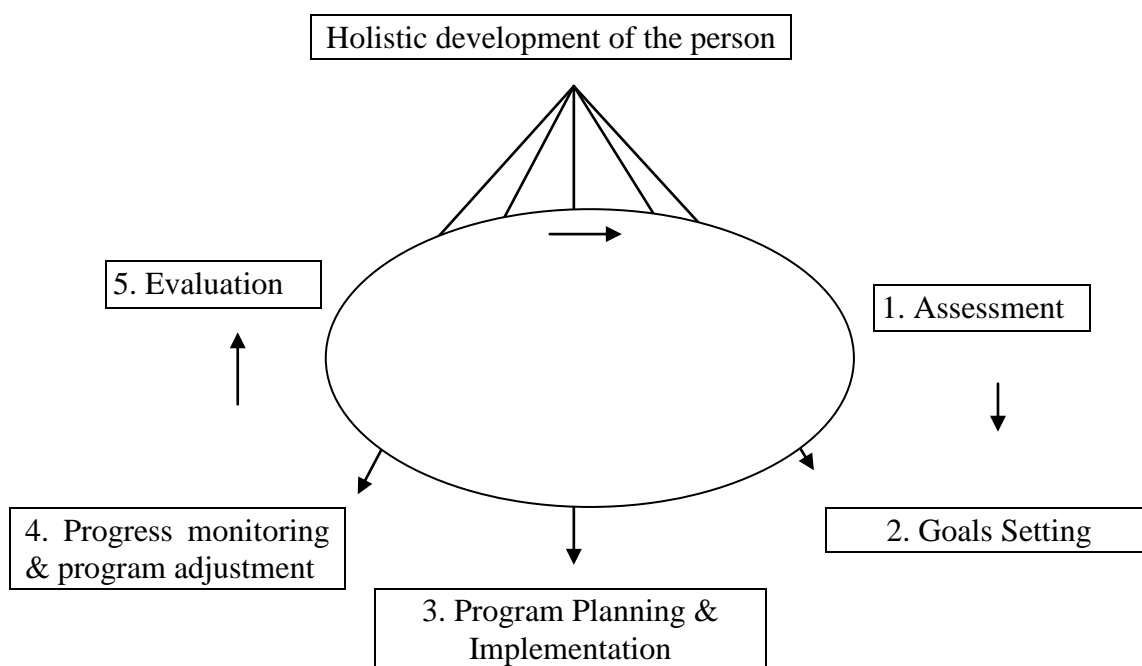


Figure 1: The design of the Integrated Curriculum is based on a generic model.

Integrated documentation has been introduced in the curricula. Client’s information is recorded by a common set of documents that is shared among different disciplines for establishing a complete picture of the client’s performance and improvement in both the assessment and program details. This facilitates our staff to formulate a unified view of their client’s needs and to coordinate the subsequent program plans.

Incorporated in the integrated curricula, there are a number of written guidelines, informative sourcebooks and countless cross-disciplines meetings. Although these curricula served well in quality assurance, there are a few drawbacks:

- (1) time consuming in referencing the written guidelines and sourcebooks;
- (2) tedious in copying useful materials from the sourcebooks;
- (3) slow in searching the required information from a big file of the integrated documentation;
- (4) difficult to match time for the cross-disciplines meetings;
- (5) lack of an efficient way to circulate hardcopies for updating and reviewing the integrated documents by different staff disciplines;
- (6) tedious in data input of the quantified data for further data processing in the computer.

The embedded KM System

To alleviate the drawbacks of the Integrated Curricula, we have determined to employ information technology to streamline its operation. Moreover, it is more important to make use of the advantages of information technology to de-centralize the management of the Association's K and to enable simple access to the corporate K resources to all approved staff members.

Welch, a former Chairman of General Electric, stated that the ultimate competitive advantage of an organization relies on its ability to learn and translate that learning into action rapidly. The compilation of the sourcebooks (figure 2) requires experienced staff to consolidate their experience in their expertise areas into written words. This is an extremely slow process. In addition to an unrealistic time-lag for the content update of these sourcebooks, it represents a top-down approach with slow permeability to the frontline in transferring the written K into actual practice.



Figure 2: Some examples of sourcebooks in the preschool (a & b) and adult (c & d) services.

In evolving into a K-based organization, we need to establish a KM system that allows the Association to accumulate, refine, update and transfer its K assets with the involvement of its staff at all levels. In addition, the frontline staff should be provided with a simple access to use and re-use the pertinent K assets for solving their problems at work and to utilize the expertise K directly in their service delivery.

In developing our KM system, we have determined not to rely on buying-in sophisticated software e.g., sharepoint portal packages. Instead, emphasis has been put on linking it to the work process of the frontline. It is believed that the sustainability of a KM system relies heavily on the frontline's active participation. Our strategy is to incorporate KM with our Integrated Curricula and at the same time streamline its operation with the help of technology. The entire system is known as the Curriculum Management System (CMS) which is a sophisticated web-based application developed by SAHK with the Hong Kong Productivity Council as the IT technical partner.

The Curriculum Management System (CMS)

CMS does not replace the entire Integrated Curricula, as client's information that is fundamentally text-based (e.g., records of counseling, electrotherapy, behavior modification, etc) has been excluded from the CMS. In fact, the virtual and the real working spaces are running in parallel in the frontline day-to-day practice.

The primarily functions of the CMS related to process streamlining are:

- (1) providing a 24-hour accessible common platform for communication among different staff disciplines that minimizes the need of face-to-face meetings;
- (2) automation in list and count, and in calculation of scores, attendance, etc;
- (3) automation in score comparison for decision making based on built-in rules and conditions;
- (4) instant searching of data based on specified screening criteria;
- (5) instant referencing to pop-up windows of keys, warnings and guidelines;
- (6) instant graphical presentations of client's data.
- (7) producing custom-made report format that suits the needs of different staff disciplines;

The primarily functions of the CMS related to KM are:

- (1) instant referencing to pertinent K pools that are resided in the CMS for use and re-use of expertise K by frontline during program planning (figure 3a);
- (2) prompting on the selection of training content from the pertinent K pools according to the assessment results of the concerned clients based on built-in rules and conditions (figure 3b);
- (3) copying and pasting of useful content from the pertinent K pools to the program under planning (figure 3c);
- (4) storing and accumulating the new training content made by the frontline;
- (5) regular content update of the K pools for sharing across disciplines and service units after refinement by the senior professionals;

The primarily functions of the CMS related to outcome measures are:

- (1) storing and manipulating baseline and on-going assessment data for longitudinal analysis of the clients' progress;
- (2) producing parameters reflecting the performance outputs of individual service units;
- (3) exporting data to sophisticated data processing software e.g., Excel, SPSS, etc.

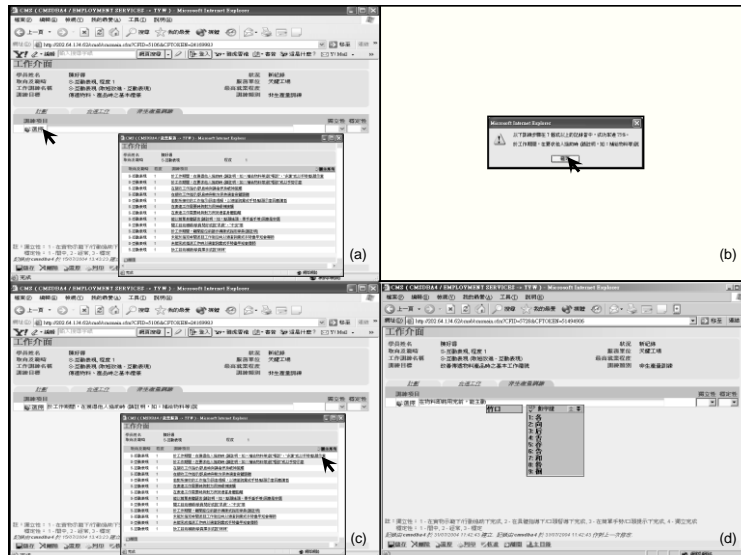


Figure 3: In establishing training content for a program within the Curriculum Management System (CMS), pertinent referencing pool can be invoked as a pop-up window (3a). The CMS will prompt on the proper content that may fit the targeted program participants (3b) and the selected content will be copied from the referencing pool and pasted onto the training program (3c). If no suitable training content can be found in the existing pool, users can make new training content that will be stored in the CMS (3d).

K Building Process in CMS

The ultimate aim of the CMS is an enormous leverage in the K building process. With the web-based CMS, the roadmap to K building becomes bottom-up and is founded on a cycle of K accumulation, refinement, update and transfer.

The CMS realizes a virtual collaboration among staff disciplines by providing them with a 24-hr accessible common platform for communication. The critical K assets in different areas are compiled systematically into various informative referencing pools that are resided in the CMS including: (1) short term learning goals pool; (2) long term learning goals pool; (3) work-related goals pool; (4) task analysis pool for personal self-care tasks; (5) social training elements pool; and (6) job analysis pool (figure 4). These pools are expandable and their contents are continuously updating.

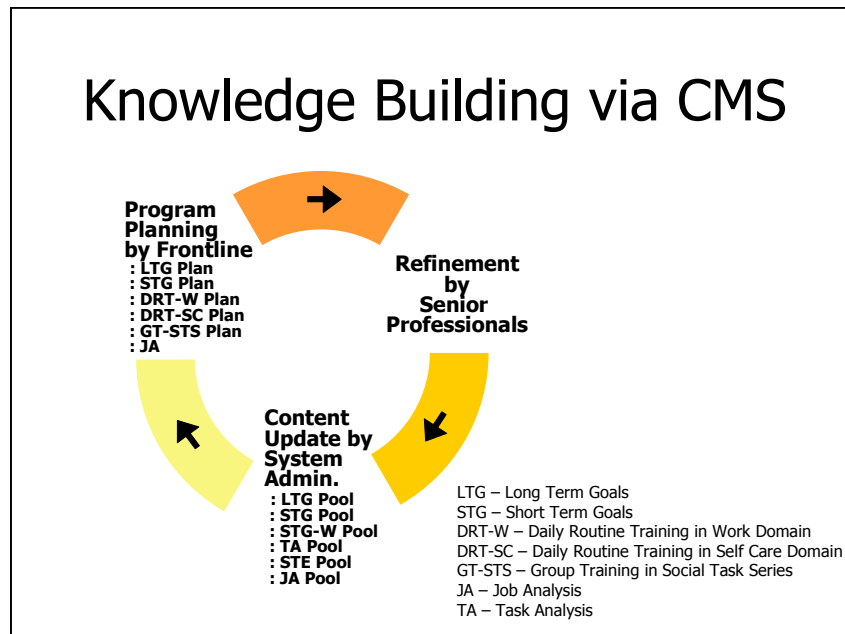


Figure 4: The flow of knowledge management in the Curriculum Management System (CMS). Frontline staff can copy content from the pertinent knowledge pools or create new training content in planning program to their clients. The newly established training content will be accumulated in the CMS and pending for refinement by the senior professionals. The refined content will then be updated to the pertinent K pools for use by other staff members.

The K assets as contributed by all levels of staff in their daily work will be stored in the CMS. The *accumulated* K assets will be *refined* by the senior professionals at regular intervals. In the *refinement* process, useful K will be short-listed and indexed for the content *update* of the pertinent K pools in the CMS. This in turn *transfers* the useful K to all staff for use and re-use in their program planning. Flexibility is allowed in adjusting the copied content from the referencing pool in accordance with the needs of the concerned clients. When a K gap exists (i.e., when no suitable solution can be found from the pertinent K pools in the CMS), staff should make their own solution to solve the unprecedented problem (figure 3d) and the newly developed solution will be stored in the CMS and pending for refinement (figure 4). The CMS drastically quickens the cycle of K building and dissimilation within the Association.

The CMS also speeds up our learning cycle. It enhances new staff to acquire the core competence for delivering services that meet the standard level. It allows them to quickly understand what they need to know and how to get the information they need. Moreover, the system is self-serviced and self-administered without the need of time matching with other staff members.

Conclusion

With the incorporation of the CMS into the frontline operation, it makes K capture and sharing becomes an integral part in our service delivery. It encourages our staff to work smarter, not merely harder. By improving the K accessibility to all levels of staff, it facilitates them to realize the power of K for developing their capacity and competency at work.

In the past, content management of the K resources has caused significant pain across the organization. CMS allows K building to be bottom-up with contribution by all staff members that

drastically quicken the process of K building. Modern database technology allows information that is previously available only to the professionals to be made widely accessible. When accessible data are combined with easy-to-use analysis tools, frontline non-professional staff – when properly trained – can have sophisticated decision-making capabilities. The implementation of the CMS greatly strengthened our transdisciplinary team approach in providing a holistic rehabilitation to our clients.



17/F, 21 Pak Fuk Road
North Point, HK
香港北角百福道
21 號 17 樓

PHONE 電話
FAX 傳真
EMAIL 電郵
WEB SITE 網此

(852) 2527 8978
(852) 2866 3727
ho@sahk1963.org.hk
www.sahk1963.org.hk