

Full Length Research Paper

Structured-exercise-program (SEP): An effective training approach to key healthcare professionals

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Structured exercise program is an effective approach to technology dependent resource limited healthcare area for professional training. The result of a recently conducted data analysis revealed this. The aim of the study is to know the effectiveness of the applied approach that was designed to observe the level of adherence to newly adopted guidelines and also to find out the critical reasons for non-adherence (gap/errors). An overall 95.6% adherence level was achieved with 43.4% reduction errors in a period of 12 months active interventional phase. The most notable factors for non-adherence identified were frequent changes of trained officers, new appointment or long-term absenteeism from work.

Key words: Structured exercise program (SEP), healthcare professional, pharmacist-physician, non-adherence.

INTRODUCTION

It is really a challenge to orient and adapt people with a new system. Orientation programmes, workshop, and conferences most often taken in traditional ways are resource dependent. They have a number of obligations to meet such as, the physical presence of participants, consumption of valuable time, costs of food, transport and accommodation and staying outside of work station. Training tools and techniques nowadays have got a variety of newer dimensions. Ruth (2008) stated that structured exercise programme (SEP) developed on the basis of need has been proved as an effective means for training people in many areas. Achievements from this type of approach are so great, that in healthcare area some critical diseases or chronic conditions like diabetes (Daniel et al., 2011), bronchial asthma (Prashanth, 2011) and hypertension are now being controlled and managed best by it. To improve the status of the physical well-being of seniors or competency of students (Prashanth, 2011), as well as to improve the knowledge and to change the attitude of adolescents (Dhital et al., 2005),

some sorts of SEPs are being employed as established theories. Stone et al. (2003) showed that structured teaching exercise (STE) is sensitive to change in preceptors' skills.

Physicians and pharmacists are the key professionals who record patients' information primarily for their purposes. Failure to do this makes the pharmacist vulnerable to legal action if the patient reacts negatively to the medication. In professional practices, these patients' records are also important for reference purposes in order to prevent dangerous drug interactions; thus these group of professionals are entitled to preserve the information. A drug use monitoring team of clinical services department was formally linked with data recording units of the nationwide healthcare facilities. These two key professionals were taken into consideration as target group and asked to support information related to the patients from their available sources. Objective of this study is to try the designed approach for its effectiveness in achieving the information based on what could be

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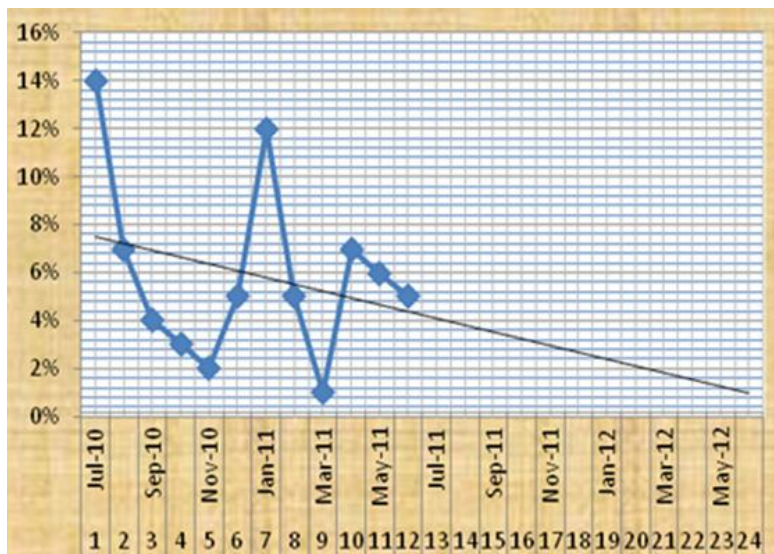


Figure 1. Line chart from up to 12th month of study period and trendline up to 24th month.

considered as adherence to guidelines; that is to know whether the target professionals can be adapted to the designed approach.

METHODS

Information recording form was constructed on the basis of categories of information required (A-Patient, B-Drug, C-Clinical conditions, D-Caregivers), circulated to target group requesting information and sent back to the issuer.

1) Same and sometimes, a few subject specific special notes considered as slow and strategic-motivational interventions in the SEP were occasionally circulated through the footer of the communication pad. A total of 120 prescribing specialists or physicians and 40 pharmacists were involved in the whole process of SEP compliance.

2) The recording of data was continued for 12 months. Altogether 10000 information was gathered in different categories and 2280 of category-A information was used in this analysis.

3) Three parameters: (a) data expected (b) data available (adherence) and (c) data unavailable (errors or non-adherence) were used as a measure of analysis and for interpretation of the results that were presented in the table and diagrams.

RESULTS AND DISCUSSION

The rate of non-adherence (errors) found in different months, periodic average, reduction rates and level of adherence are presented in Figure 1. Initially, non-adherence rate was 14%. The rate was higher than any time of the projected period which gradually declined to 5% at 12th month. Average error rate was 6% but discrete (SD \pm 3.8) in overall study period in the structured

exercise program (SEP).

Periodic average (Figure 1, Column 2) shows that the most effective session of this intervention from was October to December, when the error rate was at minimum level (3%). In last two sessions, January to March and April to June, non-adherence level was same (6%) but higher. General errors reduction rate shown in Figure 1 was 57% (considering initial and yearly average), but rate became 43.4% because of the trend line (Table 1) which could be considered as actual errors reduction at 12th month. The adherence level in 12th month's active interventional period was 95.6% which could be 97.3% or more if the study period was projected to 18th to 24th months which is sufficiently higher and satisfactory. This is because similar findings by Alp et al. (2011) stated that high self reported adherence was independently associated with receipt of structured training.

Table 2 stated trends of changing non-adherence, where the first six months recorded sharp decline (Table 2A), and the last six months gradual decline in errors (Table 2B). Conversely, trend lines constructed by the data of last six months shown in Table 2B (October to March) established sustained gradual increase in non-adherence. These three features clearly indicated the period of potentially effective and dull session of the interventions. The causes of the reverse features of the first and last period of the result could be linked to the socio-economic and corporate culture caused by poor human resource management and frequent changes in senior management that have been associated with low levels of performance (Jokhio et al., 2008).

Many young people are joining the workforce every

Table 1. Rate of changes after launching SEP.

NA/errors (%)				Reduction in NA/errors (%)	Adherence level (%)
Month (%)	Periodic average (%)				
1st	14			General: up to 12th month	57.1
2nd	7	Jul-Sep	8		
3rd	4				
4th	3			Actual: up to 12th month	95.6
5th	2	Oct-Dec	3		
6th	5				
7th	12			Projected: up to 18th month	97.3
8th	5	Jan-Mar	6		
9th	1				
10th	7			Projected: up to 24th month	
11th	6	Apr-Jun	6		
12th	5				

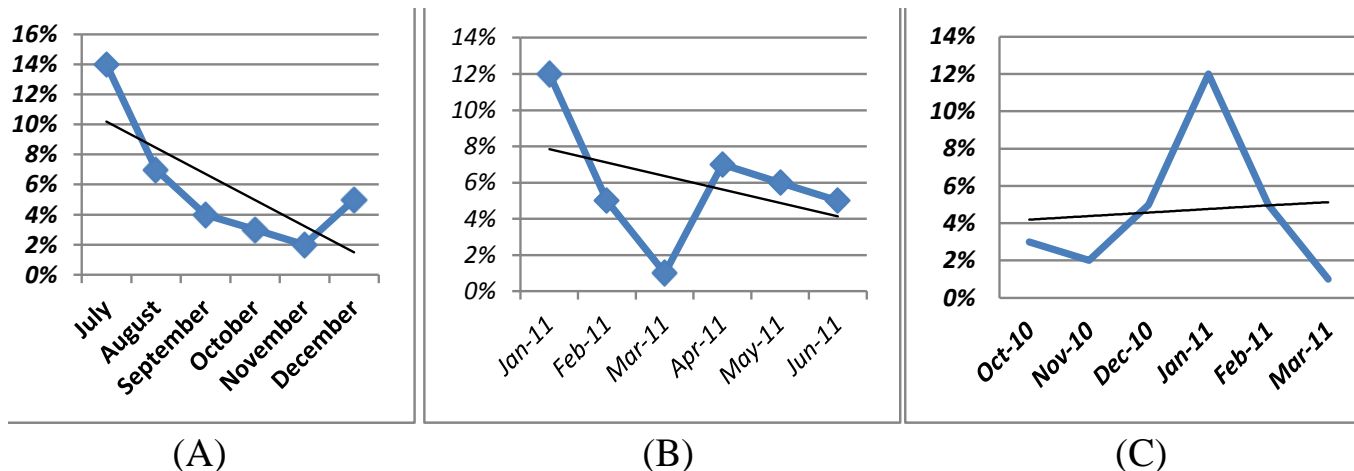


Figure 2. Trends showing declining errors: sharply (A), gradually and (B) increasing gradually (C).

year. This group of staff is new and not well oriented with the established rules and existing practices. Besides, they have no depth realization about the demands of multiple stakeholders. Notwithstanding, even if there is no scarcity of skilled workers in the team, due to staying out for holidays there might be scarcity of skillful input because of situational vacation in general health services as well as for this SEP studies. It was observed that even in public sector, people are very much excited to celebrate and enjoy the festive season, December and January. Moreover, the transfer of a skilled officer from the place and the replacement of new staff could have

deterred the acquired success of the first phase of the study, although overall downturn was satisfactory. This sudden increase in error to 12% in January could have been avoided if the system had retained multiple options like picking more than one personnel from each professional section for this intervention, prior campaign to possible replacement to prevent the situational cessation of system, for overall achievement to become steady. Mark et al. (2004) concluded in their study that to improve data quality, repeated assessments and training are very important, which have been marked in this study by the optimum level of error reduction at extended

period up to 24 months of the study.

CONCLUSION

Structured training program (SEP) with slow motivational approach for healthcare professionals seems effective, and to sustain achievement level, attention needs to be given to specific season in a certain interval.

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