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ERGOMEDICINE SERVICES IN RURAL AND URBAN CHHATTISGARH

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ABSTRACT: Ergomedicine services in Chhattisgarh are provided through district rehabilitation centers, medical colleges, private ergomedicine set up and private healthcare centers. Ergomedicine vigilance was assessed by questionnaire and semi structured interview. Study revealed a paucity of the rehabilitation staff in the urban areas of the state and acute shortage of the ergomedicine and rehabilitation professionals in rural areas. Appreciable programs are being run by government for the upliftment of rehabilitation services but they lack effectiveness because of inadequacy of qualified staff.

KEYWORDS: Ergomedicine, Chhattisgarh, rural healthcare.

INTRODUCTION: Ergomedicine services in Chhattisgarh were established even before it was a part of undivided Madhya Pradesh. These services are provided through district rehabilitation centers, medical colleges, private ergomedicine set up and private healthcare centers. Most of the ergomedicine services available are more or less concentrated in and around the capital and law capital of the state, resulting in the poor availability of the ergomedicine services in the rural area.

To combat with this situation government has taken several measures to provide rehabilitation facilities to the needy people of the state by running different projects like National program of rehabilitation for disabled people through district rehabilitation centre. But due to poor connectivity of the state majority of the population of Chhattisgarh still remains untouched to quality rehabilitation services.

The present study was carried out to find out the present status of ergomedicine and rehabilitation services; to evaluate, assess the problem areas amongst rehabilitation staff practicing in rural and urban areas of Chhattisgarh.¹

METHODOLOGY: To get factual information about the scenario of the ergomedicine and rehabilitation services, we carried out a questionnaire study along with a semi-structured interview of 40 medical graduates, 45 practitioners in modern and holistic medicine, 18 therapists, 35 rehabilitation assistants of which 20 were village rehabilitation workers, working in rural areas and 15 were multipurpose rehabilitation workers in urban setup.

First part of the questionnaire comprised of general information, details about infrastructure of the workplace, information about the type of patient, areas of referral. The second part of the questionnaire included questions based on basic information related to the field of ergomedicine and knowledge regarding recent advances.

A semi-structured interview was also carried out to gain insight into the difficulties and problems they come across during their professional career. It also included their opinions regarding rural and urban patient setup, and their views to improve the healthcare system.

ORIGINAL ARTICLE

Apart from the general details, elaborate information regarding the setup of clinic, whether it is rural or urban, attached to medical college or district hospital, rehabilitation centre, orthopedic center, primary health centre etc. was noted. The data regarding the type of patients attending rehabilitation clinic and type of the treatment i.e. use of adjunct devices, content of therapy session, were recorded.

RESULT AND ANALYSIS: Rehabilitation awareness was graded depending upon the assessment score in the questionnaire. Professional was considered vigilant in the field of ergomedicine if he can successfully perform at least five of the ten tasks in the questionnaire. Those having more than 50% of the assessment score were regarded as vigilant in the field of ergomedicine. Of the total medical graduates, half were from rural areas and the rest from urban areas. On analysis of the questionnaire response of the medical graduates from rural areas, we observed that 15 % of the medical graduates were vigilant while vigilance score was 35% amongst those from urban areas.

From analysis of three year course practitioners in modern and holistic medicine, we found that only 4.4% were vigilant in the field of ergomedicine, all of them belonging to rural setup as they have been exclusively trained to serve the rural population of the state.

Amongst 18 therapists, all practicing exclusively in urban areas, 88.88% exhibited vigilance in the field of rehabilitation. Out of them, only three were occupational therapist and rest 15 were physiotherapist.

Rehabilitation assistants were categorized as village rehabilitation workers VRW (20) for rural area and multipurpose rehabilitation workers (15) for urban setup. Amongst village rehabilitation workers, vigilance in the field of ergomedicine was nil whereas for multipurpose rehabilitation workers it was 46.66%.

Figure 1 shows percentage of ergomedicine vigilance in different group. Table no. I shows percentage of distribution vigilant professionals in rural and urban areas. Analysis of assessment score for ergomedicine vigilance by 'Z' test depicted highly significant differences between rural and urban professionals ($P < 0.001$). The details are shown in table no. II. Statistical analysis by ANOVA for ergomedicine assessment score exhibited significant variance amongst different groups of rural and urban professionals ($P < 0.001$). The details are shown in table no. III.

Semi-structured interview gave information about the type of patient attending rehabilitation clinics and modalities of treatment used. It was observed that the average patient attendance in orthopedics was 50%, in neurology 20%, in pediatrics 10%, burn 10%, and remaining 10% from other disabilities.

Most of the rehabilitation center setup had an urban rural ratio of 5:1. When asked about follow up of the treatment it was found that urban patients had a better follow up rate than the rural. Data analysis of the district rehabilitation centers revealed that the ratio of attendance for rural to urban was 1:1 and rural patients had better follow up ratio when convinced about the therapy properly. This can be attributed to various camps and awareness programs carried by center regularly.

DISCUSSION: We observed that ergomedicine vigilance was maximum amongst the therapist (88.88%), Low scores of assessment amongst medical graduates; rural (15%) urban (35%), and

ORIGINAL ARTICLE

practitioners in modern and holistic medicine (4.4%) might be due to non-inclusion of ergomedicine syllabus in their study curriculum.

Village rehabilitation workers did not exhibit any vigilance in ergomedicine. If this problem can be rectified, there can be a dramatic improvement in ergomedicine services in rural areas. The training session can be improved with liberal use of diagrams, flow charts, pictorial presentations and audio-visual aids.

Our study revealed the fact that there is an acute shortage of ergomedicine graduates in the rural areas and paucity of them also observed in the urban areas. In Chhattisgarh there are less than ten ergomedicine graduates available till date. There are 16 district rehabilitation centers which need around 48 ergomedicine professionals and 64 rehabilitation assistants. Most of the posts are vacant at present as there are no qualified professionals available from this region. The professionals from other states are also not employed as state government has formulated a policy that employees should be domiciled in the State of Chhattisgarh.²

Chhattisgarh, although predominantly tribal state, is developing at a fast pace in the field of medical education with three medical colleges in urban setup and forthcoming medical college at remote area and medical university in state in next few months; six physiotherapy institutes, six dental colleges are the indicators of the growth. Ergomedicine has not been given proper attention in spite of the desperate need of the professionals in this field. As there are no institutes in the state to provide education in this area, to start ergomedicine curriculum with community based rehabilitation in the state has become need of the hour.³

CONCLUSION: Study revealed a paucity of the rehabilitation staff in the urban areas of the state and acute shortage of the ergomedicine and rehabilitation professionals in rural areas. Appreciable programs are being run by government for the upliftment of rehabilitation services but they lack effectiveness because of inadequacy of qualified staff. Although basic infrastructure and funding is available all the efforts prove to be futile due to scarcity of trained rehabilitation professionals.

Ergomedicine has widened its horizon, by encompassing the different fraternity of medicare under its umbrella. To give benefit of this development to the needy rural disabled population we suggest and recommend to the higher authorities to start with an ergomedicine institute and different short term courses in ergomedicine. We also recommend inclusion of ergomedicine and rehabilitation practices in the syllabi of the medical graduates and practitioners in modern and holistic medicine as they are the backbone of the rural health services. Services of these trained three year medical diploma personnel can be utilized at rural levels to provide state-of-art healthcare system in a rehabilitation setup.

We need to change the strategy to train personnel right from top to bottom in the hierarchy of rehabilitation setup⁴. Training programs with a different philosophy should be organized for rehabilitation personnel, right from medical rehabilitation professionals to multipurpose rehabilitation workers.

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ORIGINAL ARTICLE

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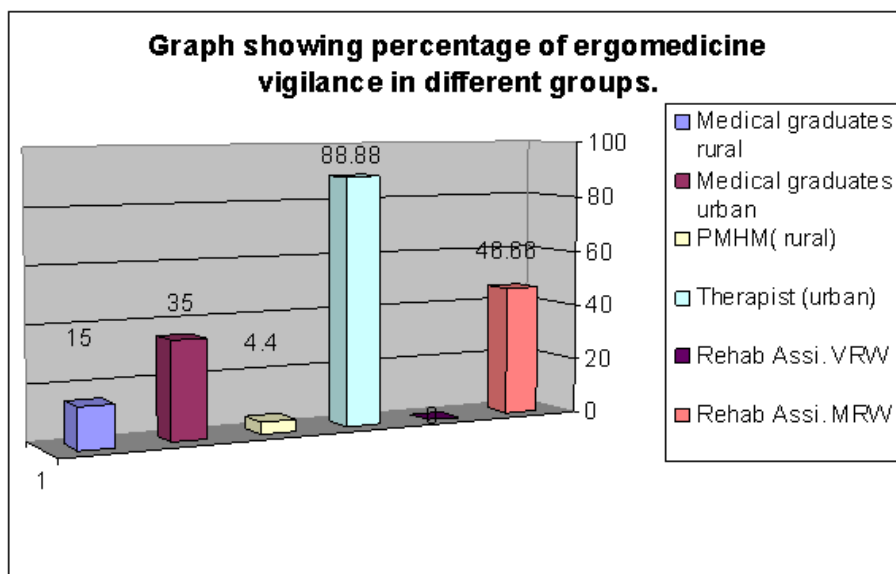


Figure 1

Vigilance in ergomedicine	Total no. of professionals in study (n=138)	Professional from rural area (n=85)	Professionals from urban area (n=53)
No. of professionals vigilant in ergomedicine	33	05	28
Percentage of professionals vigilant in ergomedicine	23.91%	5.88%	52.83%

Table no. I shows distribution of percentage of vigilant professionals in rural and urban area

Groups	Vigilance in ergomedicine	Statistical Analysis of assessment score of ergomedicine vigilance between urban and rural area	P value	Remark
Professional from rural area (n=85)	5 (5.88%)	'Z' test	P < 0.001	Highly Significant
Professionals from urban area (n=53)	28 (52.83%)			

Table no. II showing statistical significance of difference in assessment score of ergomedicine vigilance between professionals in urban and rural area

Name of group		Number of persons vigilant in Ergomedicine with percentage	Statistical analysis of assessment score by ANOVA	P value	Remark
Medical graduates (n=40)	Rural (n=20)	03 (15%)	Analysis of variance	P < 0.001	Highly Significant
	Urban (n=20)	07 (35%)			
Practitioners in modern and holistic medicine (n=45)		02 (4.4%)			
Therapist (n=18)		16 (88.88%)			
Rehabilitation assistant (n=35)	Rural VRW (n=20)	NIL			
	Urban MRW (n=15)	05 (46.66%)			

Table no. III statistical significance of analysis of variance of ergomedicine assessment score amongst different group of rural and urban professionals

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