ORIGINAL RESEARCH PAPER
Volume - 9 | Issue - 7 | July - 2020 | PRINT ISSN No. 2277 - 8179 | DOI : 10.36106/ijsr
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

A DESCRIPTIVE STUDY TO ASSESS THE KNOWLEDGE AND ATTITUDE OF SCHOOL TEACHERS IN NAGALAND, INDIA TOWARDS CHILD MENTAL HEALTH AND THEIR DISCIPLINING PRACTICES

Psychiatry

Ms. Marinella M. Humtsoe — Psychiatric Social Worker Dept. Of Psychiatric Social Work LGB Regional Institute of Mental Health Tezpur-784001

Dr. Sonia P. Deuri — Professor Dept. Of Psychiatric Social Work LGB Regional Institute of Mental Health Tezpur-784001

Dr. Arif Ali — Asst. Professor Dept. Of Psychiatric Social Work LGB Regional Institute of Mental Health Tezpur-784001

Dr. Priya Ranjan Avinash * — Associate Professor Dept. of Psychiatry Himalayan Institute of Medical Sciences Swami Rama Himalayan University Dehradun- 248140 Uttarakhand, India *Corresponding Author

ABSTRACT

Background: It is found that underlying many problems of classroom management are teachers attitude towards discipline the standards of behaviour set for children and the techniques used to attain these standards. This study aims to look into these factors.
Material and Methods: A descriptive cross-sectional design where 60 teachers in total from 6 different private schools in kohima (Nagaland) with 10 teachers each were recruited using purposive sampling. A semi-structured questionnaire, a scale for attitude towards mental health among children and a checklist for teacher's disciplining practices for children were used, data was collated and finally analysis was done using appropriate statistical methods.
Results: Majority of the respondents were young, with the mean age of the study sample being 29.78. The mean score on the attitude scale was 103.58. This shows that the respondents scored more than 2/3rd of the total score suggestive of Knowledge and attitude towards child mental health. There is a positive correlation between attitude of respondents towards child mental health and the two domains of Disciplining Practices. There is a positive correlation between the relevance of healthy disciplining practices and the frequency of use of the healthy disciplining practices
Conclusion: Younger teachers and teachers teaching fewer subjects have better attitude towards child mental health. Also teachers teaching fewer subjects in the class use more healthy disciplining practices. Teachers with better attitude towards child mental health issues use more healthy disciplining practices.

KEYWORDS

Knowledge and Attitude, School Teachers, Disciplining Practices

Background

It is generally agreed that school teachers ought to know the various mental health problems that children face, ways to prevent mental health problems and promote better mental health in children. As they have a great deal of contact with their students, teachers are in a position to notice first when children are experiencing mental health difficulties. The physical health has always brought the attention of national health policies but the mental health issues are being the focus of national policies only in the recent times. Child mental health problems are found everywhere, the differences being in kind and degree. They may lack concentration, be forgetful, impulsive, have difficulty in controlling anger, and fight. So basically childhood is affected by myriads of mental health issues. However most parents, teachers and other adults are not sensitive to pick up these subtle forms of behavioral indications and often ignore or neglect them. It is only when the problem becomes severe and disabling that some attention is paid to the child. But in the early stages it is much easier and simpler to intervene and push the developmental trajectories into healthier and adaptive course. While in later stages it is difficult to intervene, and sometimes it is too late and too little that we can do at such a stage. The knowledge of school teachers regarding mental health issues of young school going children is an important factor in deciding how a school teacher will behave when faced with a situation where he has to deal with a difficult or a child performing less than average in a class.

The other thing is the attitude of school teachers regarding mental illnesses. Many at times due to negative attitude and inadequate knowledge among school teachers about the common mental health problems of children; they are generally overlooked and not brought into the immediate attention of the health care providers. While at other times inadequate knowledge and attitude at the teacher's end may lead to labelling and harsh treatment by teachers of a child, who is normal but just different.

Also the student's attitude towards school and classroom achievement depends on the disciplinary practices and classroom management by the teacher. It is found that underlying many problems of classroom management are teachers attitude towards discipline the standards of behaviour set for children and the techniques used to attain these standards.

As we have a dearth of studies from India, specially from the North-eastern part of our country regarding the level of knowledge and attitude towards child mental health, and our institute catering to mainly the north eastern population , we planned to study the knowledge and attitude of teachers from private schools of Kohima town, Nagaland and also their Disciplinary practices . As the knowledge, attitude and disciplining practices are expected to influence one another and can get affected by various other factors, this study aims to look into these factors.

Methods:

Aims and Objectives of the study

- To determine the existing knowledge and attitude level of school teachers regarding child mental health problems.
- To assess the disciplining practices of the school teachers.
- To determine the relation between knowledge and attitude of school teachers with their disciplining practices.

Research design

A descriptive cross sectional design has been adapted to conduct the study

Setting of the study

The setting of the study was based on six private schools in Kohima District, Nagaland

Universe

The universe includes school teachers both males and females teaching at the six schools.

Sample

60 teachers, 10 each from the 6 schools, both male and female, working on a permanent or temporary basis

Sampling method

Selection of the schools was selected using purposive sampling

method. For the selection of the 10 teachers from each school, random sampling method was used for the selection of the school teacher.

Inclusion criteria

1. Both male and female teachers who were willing to participate in the study and teaching at the secondary level of the school were included for the study.

Exclusion Criteria

1. The teachers who were teaching at higher than secondary level
2. Those who did not give their consent for the study.

Tools

1. Semi-structured Questionnaire
2. Scales on Attitude towards mental health of the children
3. Checklist on Teacher's disciplining practices of children

Statistical analysis

Data was coded and entered into a master chart and analysis was done with the help of SPSS 20 using various statistical methods like mean, median, standard deviation, and Pearson's correlation was done.

Results and Discussion

In the Present study there were a total of 60 teachers recruited from 6 private funded schools of Kohima; taking 10 teachers each from the schools. A cross sectional descriptive study was conducted and the data collection was done over the duration of 1 month.

Table 1 Mean Age of the Respondents

Variable	Mean	SD
Age	29.78	5.95

The above table shows that the mean age of the respondents was 29.78 ± 5.95. It shows that the study sample was predominantly of young age.

Table 2 Frequency and Percentage of Sex of the Respondents

N=60

Sex	Frequency	%
Male	15	25%
Female	45	75%

From the above table it is obvious that among the 60 respondents, majority were female. 3/4th (75%) of the respondents were female while the rest were male. As a general trend all over teaching is increasingly becoming a career choice preferred by female. This finding is in agreement with the global trend. Among full-time and part-time public school teachers in 2007–08, some 76 percent of public school teachers were female [1]

Table 3 Educational Qualifications of the Respondents

N=60

Educational Qualification	Frequency	%
10th &10th + 2	7	11.7%
Graduation	29	48.3%
Post Graduation & above	24	40.0%

In the above table it shows that most of the teachers among the study sample were well qualified with around half (48.3%) of them being graduates and 40 % had post graduation or higher qualifications. only a meagre 11.7% were qualified up to secondary level. According to the seventh all India School Education survey published in 2006 by National Council of Education Research and training around 80 % of the teachers teaching at schools in urban regions are graduates or above

Table 4 Teachers opinion regarding Mental Health issues

N=60

Variables		Frequency	%
Ever attended Seminars/ Workshops/ Programmes regarding Mental Health	Yes	16	26.7%
	No	44	73.3%
Do you know anyone with Mental Illness?	Yes	31	51.7%
	No	29	48.3%
Ever heard about Mental Illness through media?	Yes	57	95.0%
	No	3	5.0%
Ever consulted a Mental Health Professional?	Yes	2	3.3%
	No	58	96.7%
Involvement in extra-curricular activities in the school	Yes	55	91.7%
	No	5	8.3%
Interested in knowing about Mental Illness	Yes	54	90.0%
	No	6	10.0%

In the semi- structured Performa there were 6 questions which directly tried to gauge the general awareness and mental health orientation of the respondents. When asked whether they have ever attended any seminar, workshop or program regarding mental health, around 3/4th (73.3%) of the teachers have not attended any seminar, workshop or program regarding mental health. That means no sensitization on mental health aspects has ever been addressed during their training as teachers.

According to Gurpreet Kaur an article published in International Journal of Research in Economics and Social Sciences in January 2013, around 33 % of School teachers had ever attended any workshop or seminar on mental health issues of students Majority of the respondents (51.7%) knows friends, neighbours, relatives, in the locality etc. with mental illness. Majority of the respondents (95.0%) have heard about mental illness through the media like Newspapers, Television, Radio, Cinemas, and Magazines etc. Majority of the respondents (96.7%) have not consulted a mental health professional like Psychiatrist, Counsellor, Psychologist etc. 91.7% of the respondents are involves in extra-curricular activities in the school.

Besides, there seems to be a really high (90%) interest among them to know more about mental illness.

In a recent study on teachers' perceptions of their roles for supporting children's mental health, only 4% of teachers strongly agreed that they had the level of knowledge required to meet their students' needs in this respect [2]. Similarly, novice and experienced teachers reported having scant training in mental health provision and therefore felt ill-prepared to recognize and assist children presenting with mental health needs [3][4]

As children spend a large proportion of their time at school, teachers could be involved in mental health promotion and reinforcing treatment strategies, in addition to being informants. Many children with behavioural disorders never reach mental health specialists [5] and various studies suggest that many are managed in non-psychiatric settings, especially education services [6][7][8].

Teachers can help pupil solve troublesome everyday problems and manipulate the pupil's physical and social environment to reduce mental health hazards.[9] (Bernard, 1965). The school must recognize the underlying theme of mental health that is essential for healthy development of the child [10].

Table 5 Mean and Standard Deviation of Attitude Scale

Variable	Mean	SD
Attitude Scale Score	103.58	5.37

We can see from the above table that the mean score on the attitude scale was 103.58. The maximum score possible is 150. The score ranged from a minimum of 92 to a maximum of 116. Comparing this with another study done using the same scale on teachers of government schools Ernakulam Education District , Kerala by Mary Venus C.J. in 1998, the mean score in both the experimental group (65.03) and the control group (83.05) , was less than the current study. This can be explained on the basis that the current study was done around 15 years after this one, and also that it was done on teachers of private school rather than government schools in the previous one. Teachers may be the most underused resources in mental health delivery [11]. Teachers are frontline professionals who have daily contact with children, and are therefore most likely to have the biggest impact on their students [2] .Teachers are in a unique position to promote positive mental health among students by practicing positive psychology principles, such as health promotion, resilience and subjective well-being, integrating these with academics.

Across cultures, knowledge about the causes of mental illness varies and has never been very favourable, worldwide [12]. This has been acknowledged by the World Health Organization that has called for greater education of the public and greater openness about mental illness Several studies have found that many members of communities lack knowledge about mental illness, especially with respect to beliefs about causes thereof [13].

Table 6 Mean Score of Disciplining Practices

Disciplining Practices	Mean	SD
DA-' Relevance of practice'	28.47	2.76
DB-' Frequency of use of the practice'	27.60	2.38

Since time immemorial, the question that bothers the most both the teachers and the students and their parents is the disciplinary practices by the teachers. The consensus keeps shifting. The student's attitude towards school and learning ability depends on the disciplinary practices followed at the school. In the current study disciplinary practices checklist developed by Mary Venus CJ in 1998 was used[14]. The disciplining practices were studied in two sub-components, the perception of relevance of the each disciplining practices and the actual frequency of use of the perceived relevant disciplining practices. From the above table we can observe that the mean score of the perception of relevance of healthy disciplinary practices in the current study was 28.47 and the mean score of the frequency of use of the perceived relevant disciplinary practices was 27.6. In a similar study done by Mary Venus C. J. in 1998, the mean score of perception of relevance of healthy disciplinary practices was 19.35 and the frequency of use of perceived relevant healthy disciplinary practices was 19.03. The difference could be understood in the light of general awareness towards the disciplinary practices among both teachers and parents , and also the difference in the setup of the two studies the current one in private schools while the previous one in government schools .

In the study by National Center for Educational Statistics report, Violence and Discipline Problems in U.S. Public Schools: 1996-97 [15], a clear relationship emerged between low-level school disruption and serious school violence. Among schools reporting at least one serious discipline issue, 28% also reported at least one crime; in contrast, only 3% of schools with minor or no reported discipline problems reported the presence of crime. These less dramatic, but more frequent school and classroom disruptions, may also play a part in shaping perceptions about the safety of schools. In an examination of violence in rural school districts, it was reported that 52% of teachers and administrators in rural schools believed that violence was increasing at the middle/high school level. But the behaviours they perceived as escalating most dramatically were not the types of deadly violence that appear to concern us most--drugs, gang involvement, or weapons-carrying--but rather behaviours that indicate incivility, such as rumours, verbal intimidation and threats, pushing and shoving by students, and sexual harassment. Perhaps perceptions of school safety are shaped as much by serious violent episodes as by overall perceptions of school climate[16].

Table 7. Correlation between Age and Domains of Disciplinary Practices and Attitude

Variables	Relevance of Disciplining Practices (DA)	Frequency of use of Disciplining Practices (DB)	Attitude towards child mental health (A)
Age	.127	.170	-.125

It can be seen from the above table that age is positively correlated with relevance of healthy disciplining practices(.127) and frequency of use of healthy disciplining practices(.170) ,while it is negatively correlated with the attitude of teachers towards child mental health(-.125) .It means that as the age of the teachers increases their attitude towards child mental health becomes poor .In other words , younger teachers have better attitude towards child mental health .This is in keeping with a study done by Rohan Dilip Mendonsa, published in Delhi psychiatric Journal in October 2013,where he concluded that younger teachers were better informed about mental health problems than younger teachers and this was significant with a p value less than 0.05[17].

This is also in keeping with the findings of Mary C. Joseph in 1998, where she found younger teachers have a more positive attitude towards child mental health as age is negatively correlated with attitude towards child mental health (r=-.06 & p=0.35). This finding is also in keeping with the findings of Jain in 1994 and Mittal in 1992[18]. Gurpreet Kaur in an article published in International Journal of Research in Economics and social Sciences in January 2013, concluded that there is a negative association between the knowledge level of teachers regarding child mental health and age of the teacher.

In contrast to the attitude, it was found that older teachers have higher perception of relevance of healthier disciplining practices and also use healthier disciplining practices more frequently than their younger counterparts.

There is a well-documented association between teacher characteristics and child outcomes, such as the child's mental health, behaviour, educational engagement and academic performance [19][4]

Many early studies confirmed that higher levels of teacher support are associated with academic motivation and attainment of goals, reduced levels of psychological distress and student prosocial behaviour [20][11].

The effects of teacher support (i.e. warmth, concern and respect) on the student's emotional and academic wellbeing may have a bigger impact than the home environment and act as an important protective factor against adverse home environments (Bowen & Bowen, 1998). Utilizing teachers in the early identification of students in need, delivery of mental health services, mental health promotion and intervention can not only have a powerful impact on youth in the classroom, but also the teacher's ability to manage the classroom[21][22].

Some studies record that older teachers appear to foster less positive attitudes than younger teachers [23][24]. Younger teachers appear more accepting of inclusive trends than their more experienced counterparts [23][25].

Table 8 Correlation between Domains of Disciplining Practices and Attitude with Teaching Experience and Number of subjects taught

Variables	Teaching Experience	Number of Subjects Taught
Relevance of Disciplining Practices (DA)	.089	.022
Frequency of use of Disciplining Practices (DB)	.139	-.050
Attitude Scale (A)	-.214	-.023

This table shows that teachers with increasing teaching experience have poor attitude towards child mental health (p=-.214). In other words teachers with less experience have healthier attitude towards child mental health. This is on the expected line as it was seen in the previous table that age is negatively correlated with attitude. And as the duration of experience will increase, so will the age of the teacher. Also number of subjects taught is negatively correlated with the attitude of the teacher (p=-.023), it means teachers teaching more subjects have more unhealthy attitude towards child mental health. Both the teaching experience (p=.089) and number of subjects taught (p=.022) is positively correlated with the relevance of disciplining practices, that is a teacher with more experience of teaching and teaching more subjects in his class, have better perception of relevance of healthy disciplining practices .however when it comes to actual use of disciplining practices, it can be concluded that teachers teaching more subjects uses more unhealthy disciplining practices (p=-.050).

Krampen (1979) and Mittal (1994) found that teaching experience is positively correlated with the disciplinary practices of the teacher [26][18]. On the other hand Glass et al (1979) and French (1993) found that class strength is positively correlated to teachers to effectiveness in maintain the discipline of the students[27][28]. Quoting an Indian Study by Mary C. Joseph in 1998 "As the strength of the class increases the knowledge and perception of the healthy disciplinary practices also increases (r=0.36, p=0.011). All these findings are in sync with the findings of this study. The current study found that more the number of subjects that a teacher teaches poor or unhealthier is his perception and frequency of use of unhealthy disciplinary practices .This finding differs from the study of Mary C. Joseph. This can be explained ,that more subjects puts an extra burden on the teacher , and this leads to more frustration leading to use of more unhealthy disciplinary practices, like punishment and other punitive measures.

Table 9 Correlation between two domains of Disciplining Practices and Teachers Attitude towards child mental health

Variables	Attitude (A)
Relevance of Disciplining Practices (DA)	.191
Frequency of use of Disciplining Practices (DB)	.076

It was expected that teachers who had a better attitude towards child mental health will have a better attitude towards healthy disciplinary practices and will use more frequently the healthy disciplinary practices. From this study we see that the score on Attitude scale has a positive correlation with Relevance of Disciplining Practices (p=.191) and Frequency of use of Disciplining Practices (p=.076). However the correlation is not statistically significant.

Reinke et al (2011), examined teachers' perceptions of current mental health needs in their schools; their knowledge, skills, training experiences and training needs; their roles for supporting children's mental health; and barriers to supporting mental health needs in their school settings[2]. Teachers reported viewing school psychologists as having a primary role in most aspects of mental health service delivery in the school including conducting screening and behavioral assessments, monitoring student progress, and referring children to school-based or community services. Teachers perceived themselves as having primary responsibility for implementing classroom-based behavioral interventions but believed school psychologists had a greater role in teaching social emotional lessons. Teachers also reported a global lack of experience and training for supporting children's mental health needs. Implications of the findings are discussed.

CONCLUSION

Most of the teachers have no exposure of child mental health issues before joining as a teacher. The level of Knowledge and Attitude of teachers of the schools has improved. Teacher's perception towards healthy disciplining practices and their use have also improved overtime .Younger teachers and teachers teaching fewer subjects have better attitude towards child mental health. Also teachers teaching fewer subjects in the class use more healthy disciplining practices. Teachers with better attitude towards child mental health issues use more healthy disciplining practices.

FUTURE RECOMMENDATIONS

- The current study has many limitations , however being the only such study in north east India , it gives us directions for future studies
- We need to have more such studies in this part of the country, with larger sample size and better tools to assess the knowledge and attitude of teachers towards child mental health.
- In future we need to conduct longitudinal studies with some intervention to improve the knowledge and attitude and the disciplining practices of teachers
- We saw from this study that younger teachers have better attitude as well as healthier disciplining practices, we should find the cause. Is it because with the time they burn out, or they are given lesser incentives making them insensitive to the mental health issues of their students. We should find the factors contributing to it and formulate policies and programs to deal with it.
- In the current study we found that attitude towards child mental health positively influences the disciplining practices of the teachers. So if the attitude is improved through some programs , it will improve the disciplining practices automatically
- The current study focussed only on the mental health issues of 6 to 13 years age group , we need to also take future studies focussing the teen age mental health issues
- There should be allocation of more time and resources for interventions like school visit by mental health professionals and presentations /workshops to positively influence attitude and practices of teachers.
- A practical and useful course in child and adolescent mental health should be the part of the curriculum of school teachers training.

REFERENCES

1. National Center for Education Statistics. (2012). 'Digest of Education Statistics', Department of Education, NCES 2012-001. U.S.
2. Reinke, Wendy M. Stormont, Melissa Herman, Keith C. Puri, Rohini Goel, Nidhi, (2011). Supporting children's mental health in schools: Teacher perceptions of needs, roles, and barriers. School Psychology Quarterly, Vol 26(1).1-13.
3. Koller, J. R., Osterlind, S., Paris, K., & Weston, K. (2004). Differences between novice and expert teachers' undergraduate preparation and ratings of importance in the area of children's mental health. International Journal of Mental Health Promotion, 6(2), 40-46
4. Whitley, J. (2010). The role of educational leaders in supporting the mental health of all students. Exceptionality Education International, 20(2), 55-69.
5. Offord, D. R., Boyle, M. H., Szatmari, P., et al (1987) Ontario child health study II: Six month prevalence of disorder and rates of utilization. Archives of General Psychiatry, 44, 832-836
6. Burns, B. J., Costello, E. J., Angold, A., et al (1995) Children's mental health service across service sectors. Health Affairs (Millwood), 14, 147-159.
7. Leaf, P. J., Alegria, M., Cohen, P., et al (1996) Mental health service use in the community and school; results from the four-community MECA study. Journal of the American Academy of Child and Adolescent Psychiatry, 35, 889-897
8. Gwendolyn, E. P., Zahener, G. E. P. & Daskalakis, C. (1997) Factors associated with child mental health service, general health and school based service use for child psychopathology. American Journal of Public Health, 87, 1440-1448.
9. Bernard ,H.W.(1965). Mental Health in Classroom. Mc Grow Hill Book Co. New York.
10. Das Gupta, M. (1990) Death Clustering, Mother's Education and the Determinants of Child Mortality in Rural Punjab, Population Studies,44(3), pp. 489-505.
11. Lynn, C. J., McKay, M. M., & Atkins, M. S. (2003). School social work: Meeting the mental health needs of students through collaboration with teachers. Children & Schools, 25(4), 197-209
12. Issa, B.A., Parakoyi, D.B., Yussuf, A.D. & Mussa, I.O. 2008. Caregivers' knowledge of etiology of mental illness in a tertiary health institution in Nigeria. Iranian Journal of Psychiatry and Behavioral Science, 2(1):43-49.
13. Jorm, A.F., Barney, L.J., Christensen, H., Highet, N.J., Kelly, C.M. & Kitchener, B.A. 2006. Research on mental health literacy: what we know and what we still need to know. Australian and New Zealand Journal of Psychiatry, 40:3-5.
14. Joseph M. Venus, (2008). Impact of Mental Health Orientation on School Teachers published Doctoral Thesis submitted to Mahatma Gandhi University. Kerela.
15. Sheila Heaviside ,Cassandra Rowand,Catrina Williams,Elizabeth Farris (1998) . Violence and Discipline Problems in U.S. Public Schools: 1996-97, Statistical Analysis Report, National Center For Education Statistics.U.S
16. Peterson, G. J., Beekley, C. Z., Speaker, K. M., & Pietrzak, D. (1996). An examination of violence in three rural school districts. Rural Educator, 19(3), 25-32
17. Rohan Dilip Mendonsa, Ismail Shihabuddeen, (2013). Mental Health literacy among elementary school teachers in rural south India. Psychiatry Journal, VOl.16, No.2, Delhi
18. Mittal J.P. (1994) . Factors associated with high and low work motivations of teachers. Indian Educational Review , Vol XXIII No. 1-2 , pp.81-85
19. Atkins, M. S., McKay, M. M., Arvanitis, P., London, L., Madison, S., Costigan, C., Haney, P., et al. (1998). An ecological model for school-based mental health services for urban low-income aggressive children. The Journal of Behavioral Health Services and Research, 5, 64–75
20. Atkins, M. S., Frazier, S. L., Adil, J. A., & Talbott, E. (2002). School-based mental health services in urban communities. In M. D. Weist, S.W. Evans, & N. A. Lever (Eds.), Handbook of school mental health: Advancing practice and research. Issues in clinical child psychology (pp.165-178). New York: Kluwer Academic/Plenum
21. Han, S. S., & Weiss, B. (2005). Sustainability of teacher implementation of school-based mental health programs. Journal of Abnormal Child Psychology, 33, 665–679
22. Kirby, M. J., & Keon, W. J. (2006). Out of the shadows at last: Transforming mental health, mental illness, and addiction services in Canada. Ottawa, Ontario: The Standing Senate Committee on Social Affairs, Science and Technology
23. Cornoldi, C., Terreni, A., Scruggs, T. E., & Mastropieri, M. A. (1998). Teacher Attitudes in Italy After Twenty Years of Inclusion. Remedial and Special Education., 19(6), 350-356
24. Lampropoulou, V., & Padelliadu, S. (1997). Teachers of the Deaf as compared with other groups of Teachers : Attitudes toward people with disability and inclusion. American Annals of the Deaf, 142(1), 2633
25. Harvey, D. H. P. (1985). Mainstreaming: teachers attitudes when they have no choice about the matter. Exceptional Children, 32, 163-173
26. Krampen (1979). Teachers Thinking Twenty years on :revisiting Persisting Problems and Advances in Education . Swets and Zwelinger Publishers 2003. ISBN 9026519540
27. Glass,G.V.,Cahen,L.S.,Smith,M.L.(1979). Class size and learning: new interpretations of the research literature. Today's Education. 68(2),pp.42-44
28. French,N (1993). Elementary Teacher stress and class size. Journal of Research and development in Education. Vol.26(2).pp . 66-77