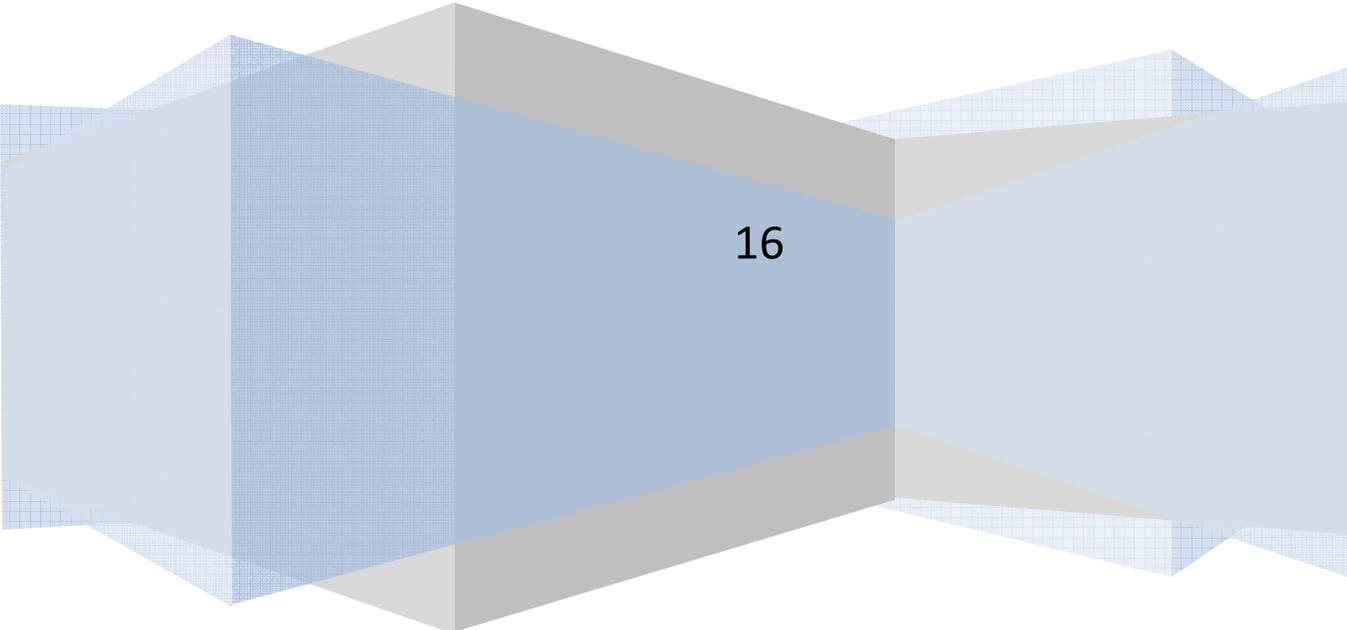


Abhoy Mission, Ramnagar Road No.1, Agartala,
Tripura Tel:03812338607,9436123069, 9862182776,
9436460721

Swabalamban (E-magazine)

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Abhoymission



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From Editor's Desk.....

Issues of disabilities & senior citizens remain invisible in global development agenda. Cause of incidence of disabilities and ageing at faster pace lie in poverty. On the other hand, people with disabilities and elderly are more susceptible to the menace of poverty. They suffer from less accessibility to vital services, which in turn contribute to marginalization or exclusion of them from the mainstream of the society. Economy at State, Country and Global level suffers a considerable loss due to increasing ratio of disable & elderly within the population. Therefore, at the present juncture of progress of humankind, inclusive development should be our goal. Inclusion is a system where every member enjoys equal rights, full participation and equal opportunities. Inclusive development must incorporate inclusive education, development of inclusive infra-structural conditions, empowerment of disable youth with job training and improved access to health services. Lack of true knowledge about disability & geriatric issues is another factor that keeps disable people & elderly away from realization of inclusion in the society. Development of community awareness is another area where we should work on. We all should join our hands together to make the dream of inclusive development real. On the way of our 28 years long voyage, though we succeed in some areas, we faced number of difficulties & complications and enjoyed enormous cooperation from a variety of sections of Society. Inclusive development cannot be realized, if, a huge number of people belonging to different sectors, cannot come together and work collectively by joining their hands. Introduction of "Swabalamban" E-magazine is a step forward to take a number of people together in more coordinated way to make inclusive development reality.

*Miss. Susmita De
Secretary.*

Experiential tale from a physiotherapist

Mr. Abhishek Majumder (Physiotherapist)

I started rendering service to elderly people and children with special needs in Abhoy Ashram in Gakulnagar G.P. under Bishalgarh Subdivision of Sepahijala District from the month of July,2014. The Abhoy Ashram is managed by Abhoy Mission, Agartala. At the very primary stage, I remained busy with assessment of senior citizens and children. Then, I prepared plan for physiotherapy for them. Initially physiotherapy service was conducted in two phase- i) active exercise and ii) passive exercise. Afterward, for children with special needs, sports programme became a new addition in the service. At present, physiotherapy service is being offered to 25 older persons and 18 children with special needs.

Due to physiotherapy service, improvement has been noticed in number of children and they learnt to live in a new approach of living. A girl, named Manju Sarkar with right side Hemiplegia developed much. At the beginning, I noticed that her elbow, wrist, fingers, knee, ankle remained bent due to spasticity. She had the inability to move these parts. Because of physiotherapy, degree of spasticity in her reduced gradually. Now she can move her elbow, wrist, fingers, knee, and ankle to a little extent. Skills in the domain of activities of daily living and in sports has been augmented.

Nayan Das, a 02 year old boy with Cerebral Palsy and mental Retardation is suffering from developmental delay. Involuntary movement is noticed in his upper & lower limbs. At the beginning he was found remained in lying condition. Due to physiotherapy service to Nayan, voluntary control enhanced in him and now he can lift self to sitting state from lying condition with his own effort.

Suman Saha, another 15 year old boy of the centre, had a habit of scratching others with finger nails. He was engaged in active exercise and sports activities. Now he can perform many activities by his own endeavor. Due to physiotherapy service, a remarkable change appeared in behaviour of Suman. Tendency to scratching others reduced considerably and now he can mix with others easily.

Trizama Aich, a 11year old day scholar, is suffering from athetoid cerebral palsy. Due to physiotherapy exercise, involuntary movement in her muscles become less and flexibility of the body increased. Improvement of motor skills noticed in her.

Physiotherapy equipments like Static cycle, Tred mill, Balance Board, Twister, Ankle exerciser and weights are used at the time of performing physiotherapy by children with special needs & elderly inmates of Abhoy Ashram.

I have a practice of telling stories & rhymes at the time of providing exercise. The children enjoy the exercise much and it helps to establish cordial relation with them. When I commenced my service, I observed that the children were reluctant to do exercise and they Among the 25 senior citizens of Old Age Home, all comes within the ambit of my therapy service. At initial stage, on the issue of common pain, elderly inmates had a tendency to go to the doctors and consume pain-killers despite suggestion from physicians not to consume such drug much. Now they realized the impact of exercise on their body and the tendency of using drugs lessened now. I regularly make conversation with older inmates. The story of their misery in their house, in past, arouses pain in my mind. Joy & jubilation of children in activities, study, sports and argument with counter argument & untainted love among elderly inmates, what I observed in Abhoy Ashram, I never noticed such phenomena in other areas in my life time.

On visit to community to provide service to children with special need & older people, I watched that family members are suffering from lack of knowledge and information regarding facilities available for them. As majority of families belong to poor category, they find little time to think & act for their disable or senior members. Even during my service to the finger-count clients belonging to economically & financially sound families, I become aware that family members have very little idea about holistic development of child.

Rho protein signaling pathways and Mental Retardation

Sudip Datta (Special Educator)

Rho proteins belongs to the family of guanine nucleotide-binding proteins(G proteins) which act as molecular switches inside the cells and are involved in transmitting signals from a variety of stimuli outside a cell to its interior. G proteins belong to the larger group of enzymes called GTPases.

In mammals, the Rho family contains 22 members. Almost all research involves the three most common members of the Rho family-

Cell division cycle 42 (Cdc42),

Ras related C3 botulinum toxin substrate 1(Rac1) and

Ras homolog gene family, member A (Rho A).

Activity of Rho proteins is regulated by factors that control their ability to bind to and hydrolyze guanosine triphosphate (GTP) to guanosine

diphosphate(GDP).When they are bound to GTP, they are “on” and when they are bound to GDP, they are “off”. Three general classes of regulators of Rho protein signaling have been identified-

- Guanine nucleotide exchange factors(GEFs)
- GTPase activating proteins(GAPs) and
- Guanine nucleotide dissociationinhibitors(GDIs)

GEFs activate Rho proteins by catalyzing exchange of GDP for GTP.

GAPs control the ability of GTPase to hydrolyze GTP to GDP.

GDI proteins form a large complex with Rho protein, helping to prevent diffusion within the membrane and into cytosol and thus acting as anchor and allowing tight spatial control of Rho protein.

Animal cells form many different shapes based on their function and location in the body. Rho proteins help cells to regulate changes in shape throughout their life cycle. Before cells can undergo key processes, such as budding, mitosis or locomotion, it must have some manner of cell polarity. One of the most obvious changes to cell morphology controlled by Rho proteins is the formation of lamellipodia and filopodia, projecting processes which look like “fingers” or “feet” and often propel cells or growth cones across substances. Virtually, all eukaryotic cells form such processes upon Rho activation.

The role of Rho family of GTPases and its effects in the stability of actin and spine motility has important implications for memory. The morphology of the spine depends on the states of actin, either in Globular(G-actin) or filamentous (F-actin) forms. If the dendritic spine is the basic unit of information storage, then the spine’s ability to extend and retract spontaneously must be constrained. If not, information may be lost. Rho family of GTPases makes significant contributions to the process that stimulates actin polymerization. This, in turn, increases the size and shape of the spine. Large spines are more stable than smaller spines and may be resistant to modification by additional synaptic activity. Changes in the shape & size of dendritic spines are correlated with the strength of excitatory synaptic connections and heavily depend on remodeling of underlying actin cytoskeleton. So Rho family of GTPases are fundamental to the formation, maturation and plasticity of dendritic spines and to learning & memory.

Rho A pathway

Ro A modulates the regulation and timing of cell division. In the context of activity of neurons, Rho A is activated as below-

Once calcium has entered the cell through NMDA receptors, it binds to calmodium and activates Ca²⁺/Calmodium dependent protein kinase (CaMKII) which leads to activation of Ro A. Binding of Rho A to key effectors Rho-

associated coile-coil containing protein kinase 1 (ROCK), Diaphanous homolog 1(DIA 1) and Rophilin Rho GTPase binding protein(Rophilin 1) leads to actin polymerization and cytoskeleton rearrangements. Protein kinase N1(PRK 1) is a Rho effector involved in endosomal trafficking.

Cdc42 pathway

Calcium influx into cell through NMDA receptor, binds to calmodium and activates CaMKII. Activated CaMKII activates Cdc42. Cdc42 acts as binary switch by cycling between an inactive (GDP-bound) and an active (GTP-bound) conformational state. GEFs are essential for Cdc42 activation. Cdc42 activates p21-Activated kinases(PAK) that specifically phosphorylates and inactivates ADF/Cofilin. Inactivation of Cofilin leads to increased actin polymerization and expansion of spine's volume.

Rac1 pathway

A number of proteins act as targets for Rac1 including PAKs, IQ motif containing GTPase Activating Protein-1(IQGAP1), Cdc42 binding protein kinase Alpha(DMPK-Like), Partner of Ras1(POR1). Rac1 binds p67 to increase activation of the NADPH system and production of Reactive oxygen species(ROS). Rac binds WASP Family Verprolin Homology Domain containing Protein which promotes actin polymerization in lamellipodia through activation of IQGAP1. IQGAP1 captures growing microtubules and results in cell polarization. Rac is involved in dynamics of actin cytoskeleton by binding to a protein complex.

Mental retardation

Mental retardation, in a number of cases, involves deformity of dendritic spines, which figure the post-synaptic connections between neurons. The distorted dendritic spines can be a consequence from modulation of rho protein signaling. After the cloning of a range of genes, implicated in X-linked mental retardation, a significant number of genes which have effects on Rho signaling were recognized. These genes are responsible for encoding proteins like Oligophrenin-1(a GAP that stimulates GTPase activity of Rac1, Cdc42 and Rho A), PAK 3(involved with the effects of Rac and Cdc42 on actin cytoskeleton) and aPIX (a GEF which activates Rac1 and Cdc42), guanine dissociation inhibitor 1. Effect of Rho signaling on the actin cytoskeleton, genetic malfunctions of Rho protein can explain the irregular morphology of neural dendritic spines seen in some cases of mental retardation.

News.....

Distribution of Educational kits among children having mental retardation

NIMH under Department of Empowerment of Persons with Disabilities, Govt. of India, along with Abhoy Mission, Agartala arranged a Distribution Camp of Educational Kits at Sukanta Academy Auditorium, Agartala on 14th September,2016. As a whole, 108 children with mental retardation received the educational kits. Category-wise distribution of kits was as such-

Category of Kits	Distributed among number of children with mental retardation
Kit-1	01
Kit-2	28
Kit-3	32
Kit-4	47
Total	108



Training on Care & Service to Persons with Disabilities

With the intention to furnish the parents of individuals with special needs, the Home Based Educators and NGO functionaries with modernized knowledge and information, the National Institute for Empowerment of Persons with Multiple Disabilities, Chennai, in collaboration with Abhoy Mission, Agartala, organized a training programme on Care & Service to the Persons with Disabilities at Sunity Hall, Ramnagar Road No.4, Agartala on 18th April,2016. In total 59 individuals participated in the programme as trainees. Dr. Aloka Guha,

ex-chairperson of National Trust, was prominent among the resource persons in the training programme. She delivered lecture on methods of giving appropriate service to persons with disabilities. Her lecture accompanied with realistic display of technique of providing service and care to such people. Mr. S. Gurumoorthy, from NIEPMD, Chennai, demonstrated the modus operandi handling and positioning children with special needs at house. Smt. Susmita De Coordinator, State Nodal Agency Centre(SNAC), Tripura under National Trust narrated facilities and concessions for persons with disabilities of the State. Sri Sudip Datta explained the services provided by the NIEPMD Extension centre, Agartala.

Training programme on Curricular Adaptation for Persons with Disabilities

With the purpose of equipping general school teachers on curricular adaptations & classroom management for children with special needs in inclusive set up, on 19th April, 2016, NIEPMD, Chennai, in association with Abhoy Mission, Agartala organized a training programme on Curricular Adaptation for Persons with Disabilities at Sunity Hall, Ramnagar Road No.4, Agartala. 75 general school teachers took part in the programme. Dr. Aloka Guha explained the strategies of curricular adaptation and classroom management for children with special needs. Through active participation in practical classes. Dr. Guha tried to introduce the concept of special abilities of the special need children in the mind of trainees. Concept of Inclusive education was amicably explained to the trainees.



Awareness programme on Special Services to Persons with Disabilities by Police, Traffic Personnel and Media Functionaries

NIEPMD, Chennai, in association with Abhoy Mission, Agartala organized an awareness programme on special services to persons with disabilities by police, traffic personnel and media functionaries on 20th April, 2016. Venue of the programme was the Conference Hall of Vocational

Rehabilitation Centre for Handicapped (VRC), Agartala at Abhoynagar. 50 participants from Police Department, Traffic Department and media were present in the programme. Sri Sebabrata De, Assistant Director, VRC, Agartala inaugurated the programme and provided thanks to NIEPMD for organizing such programmes. Dr. Aloka Guha narrated the Rights of persons with special needs and explained how the police as well as traffic Department personnel and media functionaries can play their role in supporting the persons with special abilities to enjoy the rights and opportunities to full extent.



Awareness programme on Safety Measures during Vocational Activities by Persons with Disabilities

On 21st April, 2016 the programme on special measures during vocational activities by persons with disabilities was organized in the Conference Hall of Vocational Rehabilitation Centre for Handicapped (VRC), Agartala at Abhoynagar. 54 individuals took part in the programme. The programme was inaugurated by Sri Sebabrata De, Assistant Director, VRC, Agartala. In inaugural speech, Sri De explained the relevance of organizing such programmes. Sri Gautam Majumder, Deputy Director, Department of Employment & Manpower Development discussed role of vocational training in creating more opportunities. He emphasized in creating more jobs in nongovernment sectors. Sri Sebabrata De discussed safety measures during vocational activities by persons with disabilities. Sri S. Gurumoorthy emphasized on taking first aid measures in fall, burn, electrical shock, snake bite and other cases. Sri Sudip Datta of NIEPMD Extension centre, Agartala and Sri Sebabrata De of VRC, Agartala provided practical demonstration along with lecture of Sri S. Gurumoorthy.

Give India's NGO Partners meet

Give India's NGO Partners meet was held in Mumbai on 29th & 30th April, 2016. Delegates of NGO Partners of Give India from all over India

attended the meeting. Fund raising through alliances, Engaging donors through better quality storytelling, tapping the donor, leveraging Give India's online fund raising platform, technology & the digital platform, maintaining financial MIS, Corporate Donor relationships were the important topics discussed in the meeting. Being a NGO Partner of Give India from 2013, Delegates of Abhoy Mission, namely, Shyamal Deb & Susmita De participated in the meeting

Capacity Demonstration by Persons with Disabilities

NIEPMD, Chennai, in association with Abhoy Mission, Agartala organized Capacity Demonstration Programme in Vocational Rehabilitation Centre for Handicapped, Agartala. The programme was inaugurated by Sri Gautam Majumder, Deputy Director, Department of Employment & Manpower Development, Govt. of Tripura. Participants with Disabilities demonstrated their skill in the trades of cutting & tailoring, carpentry, cane work, radio & TV repairing and computer operation. Notable performers in different trades were distinguished with prizes. In valedictory session, Sri Shyamal Deb expressed his gratitude to Director NIEPMD for taking initiative to organize such training programmes in Tripura State.

Review meeting of State Nodal Agency Centres(SNACs) of the National Trust

Under the Chairmanship of Dr.Vinod Agarwal, Chairperson, National Trust, a review meeting of State Nodal Agency Centres(SNACs) was held in New Delhi on 11th May, 2016. Sri C.K. Khaitan, JS & CEO along with other officials of National Trust attended the meeting. Coordinators of SNACs of 25 States and Union Territories including Ms. Susmita De, Coordinator, SNAC, Tripura State were present in the meeting.

Prior to review meeting, 02 hours training programme of SNAC Coordinators on use of Scheme Management System (SMS) was organized.

In his address, the Chairman told that Department of Empowerment of Persons with Disabilities (DEPwD) is developing a National Disability Data base containing Unique Disability ID (UDID) for each person with Disabilities (PwD) in the country. He stressed the need for spatial distribution of schemes to ensure PAN India representation. He also stated that Guidelines for Evaluation and Assessment of Autism and procedure for certification has been notified by the Department.

The Programme officer informed the SNAC Coordinators about introduction of online module. In the meeting decisions were taken in favour of –

- Making wide publicity of RCI recognized Care Associate Course under Sahyogi scheme
- Sending factual report by SNAC on issuance of Disability Certificate covered under the Act.
- Making 'Dashboard' by SNACs with following information
 - a. Name of the ROs of the State.
 - b. The schemes sanctioned to them
 - c. Notifications to SNAC and ROs

Training on Developing Counseling Skills for Counselors and Case Workers of Child Care Institutions

National Institute of Public Cooperation and child Development, Regional Centre, Jawahar Nagar, Khanapara, Guwahati organized Training on Developing Counseling Skills for Counselors and Case Workers of Child Care Institutions from 6th to 10th June, 2016. More than 50 Counselors and Case workers from 10 states- Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Odisha, Nagaland, Tripura & West Bengal participated in the training programme. Five Counselors and Case workers from Tripura State including Debarshi Deb & Sudip Datta took part in the training programme.

State Level Workshop for Orientation about online processing for funding for the National Trust Registered Organizations of North East India

State Level Workshop for Orientation about online processing for funding for the National Trust Registered Organizations of North East India was taken place in Don Bosco Institute ,Kharguli, Guwahati on 21st June, 2016. Mr. U.K. Shukla, Legal Advisor of National Trust, introduced the new schemes of National Trust to the Registered Organisations. Mr. Shukla also told about www.thenationaltrust.gov.in as new website of National Trust. Training was provided on how the organization will get registered themselves and online processing of Scheme management System to familiarize the ROs to avail the schemes. Sri Partha Pratim Shil & Sri Abhishek Majumder participated in the workshop as representative of SNAC, Tripura and Abhoy Mission respectively.

Medical Team in Abhoy Ashram with effort from Govt. of Tripura

In last rainy season number of inmate beneficiaries of Abhoy Ashram, including children and elderly fell ill with high degree of fever. Observing the number ailing inmates, the Govt. of Tripura took initiative to send a medical

team to Abhoy Ashram. In the month of August, the medical team visited Abhoy Ashram. Checking of health condition of all the inmates was conducted. Doctors of the team prescribed medicines according to ailing conditions, medicines were provided. Pathological tests conducted to detect malarial parasites with blood samples of all the beneficiaries and service providers



Training Programme on Disabilities for Media persons & Govt. officials

The National Institute for the Mentally Handicapped (NIMH), Secunderabad, with support from Abhoy Mission, Agartala, structured an Orientation and Training Programme on Disabilities for the Media Persons and Government officials at Circuit House Conference Hall, Agartala on 13th September, 2016. Dr. Binapani Mahapatra, HOD, Deptt. of Rehab. Psychology, NIMH, Secunderabad, Dr. Mousumi Bhaumik from NIMH, R.C. Navi Mumbai, Mr. R.C. Nitnaware from NIMH, Kolkata, Miss Susmita De, State Coordinator, SNAC, Tripura under National Trust and President of Abhoy Mission, Sri Shyamal Deb were among the distinguished persons attended the programme. In total, 34 media persons and officials from different electronic and print media including All India Radio, Agartala, Department of Information & Cultural Affairs (ICA) and Doordarshan Kendra, Agartala participated in the programme.

Training Programme on Disability issues for Teachers of Gomati District

NIMH, in association with Abhoy Mission, Agartala organized a Training Programme on Disability issues for teachers at Urban Resource Centre, Udaipur on 15th September, 2016. Dr. Binapani Mahapatra, Dr. Mousumi

Bhaumik and Mr. R.C.Nitnaware acted as resource person in the training programme. In total, 93 teachers from different Govt. Schools of Gomati District of Tripura participated in the programme.

Training Programme on Disability issues of primary school teachers, anganwadi workers, CDPOs & Supervisors of Sepahijala District

NIMH, Secunderabad with cooperation from Abhoy Mission, Agaratala arranged a training programme on Disability issues at Melaghar Town Hall in Melaghar on 16th September, 2016. Dr. Binapani Mahapatra, Dr. Mousumi Bhaumik and Mr. R.C.Nitnaware were the resource person in the programme. In total, 98 primary school teachers, anganwadi workers, CDPOs & Supervisors of Sepahijala District participated in the programme.

National Trust Local level Committee Meeting at Dhalai District

A meeting of Local Level Committee(LLC) under National Trust was held in the office of the District Magistrate & Collector of Dhalai District at Jawaharnagar, Ambassa, on 24th September, 2016 on issue of development of persons with autism, cerebral palsy, mental retardation & multiple disabilities including reconstitution of Local Level Committee. Besides honorable DM & Collector, Sri Vikas Singh, the Programme officer of DISE, Dhalai District, Sri Jyotirmoy Nath, DCPO, Dhalai District, Sri Ranavijay Deb, President of Abhoy Mission, Sri Shyamal Deb, Advocate Sri Uttam Karmakar and Coordinator of State Nodal Agency Centre, Tripura under National Trust were among the notable persons present in the meeting. The meeting came to a decision that honorable DM & Collector will convene another meeting in the month of November to make advancement in the course.

Infra-structural set-up for Vocational Training established in Abhoy Ashram

Infra-structural set-up with a view to conducting Vocational Training for the persons with disabilities in the model of PMKVY scheme in the course of cane& bamboo, candle & chalk making, preparation of incense stick, cattle farming, duckery, embroidery & tailoring preparation of vermin-compost manure, gardening with capacity of 20 trainees in a batch has been established in Abhoy Ashram .

Thanks