WORLD AIDS DAY

ACCESS EQUITY RIGHT NOW

World aids day is celebrated every year all over the world on 1st of December to raise the public awareness about AIDS (Acquired Immuno Deficiency Syndrome). AIDS is a pandemic disease caused due to the infection of Human Immunodeficiency Virus (HIV). The day is celebrated by the government organizations, NGOs, civil society and other health officials by organizing the speeches or forums discussion related to the AIDS

About aids

AIDS (acquired immune deficiency syndrome or acquired immunodeficiency syndrome) caused by the HIV (human immunodeficiency virus) which attack the immune system of the human body. The disease was first recognized in the year 1981. It was first identified by the name of AIDS on 27th of July in the year 1982.

HIV infection can be easily transmitted from one person to the other if they have contacted ever directly through the mucous membrane, bodily fluid or blood. In the earlier period, there was a lot of social stigma for the people with HIV/AIDS. According to the estimate, it has been noted that around 33 million people have been infected with the HIV and 2 million people died because of it each year.

HIV is a virus which attacks the T-cells of the immune system and causes the disease known as AIDS. It is found in the human body fluids like blood, semen, vaginal fluids, breast milk of the infected person which can be passed to others by a direct contact like blood transfusion, oral sex, anal sex, vaginal sex or injecting contaminated needles. It can be passed to the baby by the pregnant women during delivery or through breast feeding.

It was originated in the 19th and 20th century in the region of west-central Africa. Actually there is no any cure for it but the course of disease can be lessens down by some treatment.

The infected person never feels any symptoms during this period and appears healthy. But, in the late stage of HIV infection (when virus weakens the immune system to fight against it) the person develops illness with AIDS. Person with the late stage infection started showing following signs and symptoms:

Blurred vision, Permanent tiredness, Fever (above 100f), Night sweats, Diarrhea (persistent and chronic), Dry cough, White spots on the tongue and mouth, Swollen glands, Weight loss, Shortness of breath, Toxoplasmosis (infection of brain), Tuberculosis, Pneumonia etc.

Theme of AIDS for 2016

ACCESS EQUITY RIGHTS NOW

Access Equity Rights Now is a call to action to work together and reach the people who still lack access to comprehensive treatment, prevention, care and support services.

Access Equity Rights Now is a call to action to strengthen the commitment to HIV research evidence-based interventions.

Access Equity Rights Now is a call to action to all HIV stakeholders to unite and overcome injustices caused by violence and the exclusion of people on the basis of gender, class, race, nationality, age, geographic location, sexual orientation and HIV status.

Access Equity Rights Now is a call to action to repeal laws that infringe on people's human rights and deny communities the ability to participate in the world as equals.

Access Equity Rights Now reminds us that all our gains will be lost if we do not continue to push forward and build a strong global movement to change the course of the epidemic.

Strategies to combat with AIDS

- Prevention of infections through saturation of coverage of high-risk groups with targeted interventions (TIs) and scaled up interventions in the general population;
- Provision of greater care, support and treatment to larger number of people living with HIV/AIDS (PLHA);
- Strengthening the infrastructure, systems and human resources in prevention, care, support and treatment programs at district, state and national levels and
- Strengthening the nationwide Strategic Information Management System (SIMS).

By: Anil Patrimath

MENOPAUSE: WHAT YOU NEED TO KNOW?

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"Youth is like spring, an over praised season more remarkable for biting winds than genial breezes. Autumn is the mellower season, and what we lose in flowers more than we gain in fruits."

-- Samuel Butler

Introduction.

Menopause is derived from two Greek word 'meno' and 'pause' meaning month and stop. Thus menopause is the permanent cessation of menstruation, resulting from the loss of ovarian activity.

Middle age is one of the turning points in one's life as it brings along many changes. It roughly starts in the early 40s, when for most of the people; it is the best period in their life when their achievement is at the highest point. The challenges between adulthood &despair of old age, comes the change-Menopause in women and during which lives take a compulsory change of direction.

Menopause is a normal milestone experienced annually by 2 million American women each year, and many women are concerned about the relation between menopause and health.

In the age group of 45-50years, fatigue (60%), lack of energy, cold hand and feet, hot flushes, cold sweats, weight gain, irritability and nervousness (50%) were common complaints. Whereas, rheumatic pains, fatigue, lack of energy (60%) followed by headache, pain in back, forgetness, neck and skull pain (50%) sleep disturbance and depression were frequent symptoms in the age group >50years.This region shows the main symptoms during menopause and it not only create awareness but also help in education of women regarding an identification of common menopausal symptoms.

Many women arrive at their menopause years without knowing anything about what they might expect, or when or how the process might happen and how long it might take. Very often a woman has not been informed in any way about this stage of life; it may often be the case that she has received no information from her physician or from her older female family members, or from her social group. As a result a women who happens to undergo a strong Peri-menopause with a large number of different effect, may become confused and anxious, fearing that something abnormal in happening to her. This is a strong need for more information and more education among the women regarding menopause.

Women have a more complex phase of old age than men because of the dominant effect in them of hormonal changes caused by menopause. However the public health care system does not acknowledge the specific health needs of older women. There has been extensive research on menopause in the West but in India only a few institutes have a recognized the potential of research on of menopause.

World Menopause Day, October 18, saw the India menopause society telling how the change, would impact their lives. But menopause was not always such a big issue for earlier generation women. They simply viewed it as a natural stage in life.

Increase lifespan owing to modern medical achievement allows women to spend more than one-third time in menopausal period. Although mechanism of ovarian aging is not fully understood, menopause associated clinical problems can be controlled and improved. Estrogen replacement therapy in conjunction with a progestin regimen not only controls hot flushes, osteoporosis, dyspareunia, and other estrogen-deficiency symptoms, but also prevents the potential risk of estrogen treatment such as endometrial and cardiovascular disorders. In addition to hormonal therapy, nutritional supplement such as calcium and vitamin D, and physical exercise are essential to the wellbeing of women in the postmenopausal period.

Knowledge and research on the physiological changes with menopause is steadily expanding. A partnership between women's life expectancy which is estimated to be 79.1years.Menopause is a normal phenomenon of aging and women experiencing menopause must have access to comprehensive care, including a complete history, thorough physical examination, risk factor and age-appropriate screening, and patient education. Studies confirm women's lack of knowledge concerning menopause and the need for education on bodily changes and approaches to self-care during transition. Vasomotor flushing, night sweat, vaginal dryness, shortening of the menstrual cycle with heavy flow progression to longer cycles and scant flow and eventual cessation of menses for a period of 12 months confirms menopause. A program of screening and education for self-care can enhance women's quality of life.

Menopause can be said to be a universal reproductive phenomenon. Numerous physical and psychological symptoms have been attributed to the hormonal changes of menopause. This reproductive landmark is not always

the same for all women in all cultures. The prevalence of menopausal symptoms varies widely not only among individuals of the same population but also between different ethnic populations.

Menopause may be smooth experience for some women with only symptoms of cessation of menstrual flow while others face one or more of postmenopausal symptoms. But there is a lack of awareness of its cause, effect and management pertaining to it. A wide gap in the knowledge has been documented in the women from developed and developing countries.

The Indian Menopause Society is committed to fostering the comprehensive wellbeing of mature and elderly, Indian women. The society provides a common forum for medical, other interested health professionals and people from all walks of life to work towards the goals are to increase awareness regarding menopause and education activities to promote a multidisciplinary multifactorial comprehensive approach to the care of these women, to facilitate the exchange of ideas and experiences of different since the physical mental and emotional health of women in the year after menopause is truly multidimensional to collect information and data and encourage research with particular reference to Indian women and to help provide awareness and services to the less privileged groups of women in our society.

Most of the women consider menopause as a natural process and apart of aging, though most of them were bothered by menopausal symptoms, but due to lack of awareness of long-term consequence of menopause and poverty very few women sought for treatment. It is important to encourage school and other educational institutions, medical care providers and the health department to co-operate in educating women about menopause, its symptoms, long term consequences and treatment options. This effort by educational programs and health care providers will help in increasing public awareness. It also helps significant improvement in both expectancy and quality of life of life in future.

Symptoms of Menopause

Menopause encompasses more than a permanent absence of the monthly menstrual cycle; it includes a series of events and changes in the female human body. The ages at which these changes start to take place vary widely between women. Some women may begin menopause as early as their 30's, and symptoms may last well into one's 60's. Others may not begin menopause until they've reach their late 40's. Doctors have officially described menopause as the time period beginning 12 months after your last menstrual cycle.

Although its signs and symptoms may be uncomfortable, it is important to realize that menopause is not an illness or disease. It is a natural process related to physical, psychosocial, and hormonal changes that the body must go through.

Women should not fear menopause as being the end of their sexuality or youth. Where as historically very few women lived beyond the menopausal mark, in this day and age many women live at least half of their life after menopausal changes have taken place.

During menopause the woman develops certain physical, physiological and psychological changes, which are collectively known as postmenopausal syndrome. Thirties women experience during the climacteric, related to the major change they are undergoing (i.e. physical, psychological, social and familial), are often linked to negative attitudes and misunderstanding concerning the phenomena involved.

It is important to relate symptoms of oestrogen deficiency, loosely termed menopausal symptoms, may begin long before the cessation of menstruation. The physical symptoms of menopause include the classical vasomotor symptoms of hot flushing and night sweats. These are common and occur in at least 70% of perimenopausal women. Their frequency varies widely from a few several dozen per day and the duration may be from a few weeks to many years.

Menopause itself is not an illness but a natural process for a woman's body. There are normal changes in the reproductive system and cycle and ultimately, the reproductive system will cease to function. That is normal.

However, certain early signs of menopause are indications of underlying hormonal imbalances or damage from poor eating habits, stress and other factors. And you may feel like you're the only woman to experience symptoms, but millions of women in the industrialized countries are going through the same experience many years before the normal age of menopause.

And at the same time, the woman's body may not be receiving the support it needs to function as it was designed to do. Poor eating habits, lack of exercise, excess caffeine and alcohol add to the problem instead of helping the body cope with the demands placed on it. This lack of balance between the demands made and support given is what prematurely gives rise to early signs of menopause. And are the health problems you are having related in any way? Very likely!

A Healthy and Happy Post-menopause

Menopause happens to each woman, whether it is a natural menopause or an induced one. The postmenopausal period can bring relief from menopause symptoms or you may find that these symptoms persist well into the postmenopausal time period as your body continues to change.

Whether your post-menopause is a symptom-free experience or one with persistent challenges, you can make it better by taking care of your health and keeping a positive attitude.

Key Concepts:

- Menopause occurs when a woman's body no longer releases eggs and the ovaries significantly reduce their production of the female hormones estrogen and progesterone.
- A woman is considered menopausal when 12 consecutive months have passed without a menstrual period and there are no other causes for this change.
- Menopause usually occurs between the ages of 45 and 55. However, it may occur earlier or later.
- The average age at the beginning of menopause in the United States is 51. In India it is 45.
- Natural menopause is preceded by a period of transition known as perimenopause. Irregular periods are common during this time.
- Perimenopause can begin anytime between a woman's early 30s and her late 60s. However, it usually begins in her middle to late 30s.
- Menopause-related symptoms occur because of the absence of eggs and the reduction in estrogen and progesterone levels.
- Common symptoms include hot flashes, thinning of the bones, vaginal dryness, mood changes, urinary problems, memory or concentration problems, lack of interest in sex and changes in physical appearance.
- Menopause usually occurs naturally as part of aging.
- Surgical menopause occurs as the result of an operation to remove the uterus (hysterectomy) and ovaries (oophorectomy). Symptoms usually begin immediately and are more pronounced than with natural menopause.
- Other factors may cause early menopause, such as smoking, genetic factors and some cancer treatments (such as radiation to the pelvic area).
- Early menopause may also be called premature ovarian failure (POF) or premature menopause.
- Premature menopause increases the risk for osteoporosis later in life.
- When menopause is suspected, a physician may perform tests to ensure that the absence of menstrual periods is not caused by some other factor.
- After menopause, a woman is at increased risk for a number of health problems including heart disease and osteoporosis. Before menstruation, her higher levels of estrogen offered some protection from these diseases.
- Menopause leads to changes in physical appearance. Weight that previously was settled in the hips and thighs may shift to the waist. Breasts may lose their fullness, wrinkles may form and hair may thin.
- As estrogen levels drop, the small amount of testosterone that a woman produces may have more pronounced effects on her body. For instance, she may develop coarse hair on her chin, upper lip, chest and abdomen.
- Menopause cannot be prevented.
- Hormone replacement therapy (HRT) is the most common and usually the most effective way to treat symptoms.
- Some health risks may be associated with HRT (such as blood clots and breast cancer). Be sure to consult a physician about the risks and benefits of HRT.
- Sexuality and the ability for sexual expression continue after menopause.

Health education involves educating women about what to expect from menopause and what they themselves can do. It has been found to improve women's knowledge, but not to have effects on Things you can do to stay healthy after menopause:

- Eat a healthy diet
- Supplement your diet with calcium daily (helps to prevent bone loss)
- Quit or try to cut down on smoking
- Use alcohol moderately
- Exercise for 30 minutes three times a week
- Have a yearly mammogram
- Have a GYN exam at least once a year with a Pap smear
- Have your cholesterol and triglycerides checked regularly
- If your cholesterol is high, you may need cholesterol -lowering drugs

Conclusion

Each woman's experience towards menopause is unique. Menopause should never bog you down from taking up challenges. A healthy menopause can be attained through proper coping strategies.

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DEPRESSION AND ANXIETY
How to Feel Awesome Without Drugs?

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Introduction

Depression and anxiety are common. These disorders are two sides of the same coin. Symptoms can affect day-to-day life and can become very distressing. One of the worst things about depression is its cruel circularity. Feeling lousy smothers motivation; loss of motivation leads to inactivity; inactivity makes depression worse—and on and on. There are an awful lot of people caught in that terrible spiral: According to research by the World Economic Forum, an estimated 350 million people worldwide suffer from depression, with a projected global cost approaching $5.4 trillion over the 20-year period from 2011 to 2030. In a recent survey, over 85% of respondents who suffer from anxiety and depression indicated they would prefer to overcome anxiety and depression without medication.

When you want to know how to deal with depression and anxiety you'll find that there are lots of alternative treatments. They are things *you* can do.

You *can* overcome depression and anxiety - beating it forever; Here there are some top recommendations to overcome depression and anxiety:

Pump Up the Jams

Music is one of the well-studied treatments for situational anxiety, and listening to your favorite tunes during times of stress can make an immediate difference in your mood. Dozens of studies show that music helps relieve stress, reduce pain, and improve mood.

Get Touchy

Speaking of stress-melting, physical touch is another form of therapy that is well-studied for its benefits in reducing anxiety and promoting mental wellbeing. Massage has been shown to reduce anxiety and stress by reducing cortisol and increasing serotonin and dopamine, all important hormones in the regulation of mood.

Acupuncture is another form of treatment that uses physical treatment to address mental wellbeing and reduce stress and anxiety. There is also evidence that acupuncture's effect on anxiety is comparable to that of Cognitive Behavioral Therapy (CBT), a type of counseling often used for those with anxiety and depression.

Limit Your Time on Facebook

When Facebook is used as a casual tool to keep in touch with friends or stay in the social loop, it can be a useful distraction. However, when Facebook is used to keep constant tabs on others or to promote a certain self-image, it can lead to an unconscious need to compare ourselves to everyone in our social network. This frequently leads to jealousy, insecurity, misplaced feelings of superiority or alternatively, feelings of inadequacy. Limiting time on ubiquitous social media sites like Facebook may be hard at first, but it may be one of the best things you do for your mental health.

Stop Comparing Yourself to Others

Comparing ourselves to other people is one of the fastest ways to worsen depression and anxiety. Sure, it can sometimes impel us to work harder or get motivated, but more often than not, we feel inadequate and "less than." This is unnecessary and a tremendous waste of time and energy. Try to focus on yourself, your own betterment, and your own life. Don't obsess about other people.

Write It Out

Keeping a private diary or a written record of your thoughts can be one of the most effective ways of dealing with mood disorders. If we are uncomfortable expressing ourselves verbally. Often we simply feel better and less stressed after systematically sorting through our emotions on the written page.

Take Your Vitamins

Its recommend both fish oil and the B vitamins to patients experiencing depression and anxiety the results have been very positive. In addition, the entire range of B vitamins, including vitamins B12, B6, and folate, may also be helpful in regulating mood.

Just Breathe!

This is the easiest, cheapest (it's free!), and most immediately accessible way to reduce anxiety in any situation, whether at home, at work, in the car, or any other places that seem to trigger your feelings of anxiety. It's a strategy that is used in mindfulness practices like yoga and meditation that is an effective tool to have in your arsenal for dealing with stress and anxiety.

Talk to People, Any People

So many depressed patients feel lonely, alone, and unloved. They can go days or sometimes even weeks without having a conversation with another human being. This degree of isolation exponentially worsens mood. The mere act of talking to another person, of opening your mouth and letting words come out, can lift mood instantly.

Pick a Goal, Any Goal

It doesn't really matter if you have a small goal or a big goal or a medium-sized goal, but whatever it is, try to work towards it, day by day, little by little. A life spent wandering aimlessly and without purpose creates a sense of unease and frustration, contributing significantly to feelings of depression and anxiety. Pick achievable goals that are easy to bite off and chew, and watch your mood lift over time.

Read About Spirituality and/or Astronomy

Reading books on spirituality and/or astronomy can help us see the big, cosmic, universal picture and can, help us regain a sense of comfort and mastery in our own lives.

Experience the Bliss of Quiet Time

People who take time out for themselves on a daily or weekly basis, whether through yoga, meditation, reading a good book, daily prayer, or even a warm bath, often feel calmer and more at peace with themselves and the world. Time out helps you to see the big picture and prevents you from letting the daily difficulties and petty squabbles of life get you down. Even if just for 15 minutes a day, quiet time can instantly transform your state of mind and helps you retain control over your life.

You have to work on your happiness; it won't just happen on its own

Happiness is a state of mind that takes practice, effort, and vigilance. You have to be willing to take a hard look at your life, cut out bad habits and people, and make changes in your own internal expectations and behavior.

Self-development and accepting yourself: getting to know and accept yourself, *without judgment,* and taking actions that are known to increase happiness

Emotional Freedom Technique (EFT): one of the best natural ways to deal with depression.

Creativity: you are capable of creating an exciting project; a labor of love, using your knowledge or passion.

Expose yourself to sunlight: which can boost mood and increase Vitamin D levels.

Behavioural activation: Behavioural activation is a talking therapy that encourages people to develop more positive behaviour, such as planning activities and doing constructive things that they would usually avoid doing.

Mindfulness-based therapies

Mindfulness-based therapies help you focus on your thoughts and feelings without becoming overwhelmed by them. They can be used to help treat depression, stress, anxiety and addiction.

Mindfulness-based stress reduction (MBSR) incorporates techniques such as meditation, gentle yoga and mind-body exercises to help people learn how to cope with stress.

Exercise

The exercise:

- Releases neurotransmitters that have an uplifting effect on mood.
- Tires muscles to prevent anxiety symptoms.
- Burns stress hormones that may trigger anxiety.
- Regular exercise is the best way to improve that mental health.

Diet.

The last and possibly most effective way to increase serotonin levels in your brain and improve your mood is to eat the Bulletproof Diet. In animals and humans, tryptophan increases serotonin levels. In cases of light to moderate to depression, tryptophan can also improve mood.

Conclusion

Anxiety and depression can definitely be resolved without medication, but the problem has to be tackled holistically, across all 3 levels of body, mind and soul. Proven ways to control the symptoms of anxiety and depression without medication

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ANEMIA "A SILENT KILLER" AMONG YOUNG WOMAN IN INDIA

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Introduction:

Anemia is a condition that develops when individual's blood lacks enough healthy red blood cells or hemoglobin. Hemoglobin is a main part of red blood cells and binds oxygen. If individual have too few or abnormal red blood cells, or individual's hemoglobin is abnormal or low, the cells in his body will not get enough oxygen. Symptoms of anemia – like fatigue occur because organs aren't getting what they need to function properly.

Women, young adolescent girls, and people with chronic diseases are at increased risk of anemia. Important factors to remember are:

- Certain forms of anemia are hereditary and infants may be affected from the time of birth.
- Women in the childbearing years are particularly susceptible to iron-deficiency anemia because of the blood loss from menstruation and the increased blood supply demands during pregnancy.
- Older adults also may have a greater risk of developing anemia because of poor diet and other medical conditions.

Weakness is assumed to be a normal condition during pregnancy and majority of Indian women do not seek treatment for anemia unless symptoms become severe. Anemia is attributed to dietary inadequacy due to poor purchasing power, illiteracy, ignorance regarding nutritional value of available cheap food, cultural taboos, superstition, large families etc. (Rao, 1978). In a society where the status of women is poor, women face both-convert and overt discrimination within family.

Indian Scenario:

Women in India follow the custom of 'eating last' or eating only the food left over after the meals of male members of the family. Nearly 50-80 percent of mothers suffer from anemia due to iron-deficiency in their diet. Puerperal morbidity is higher among women with hemoglobin (Hb) level below 6.5g/dl compared to women with normal Hb level (United Nations Children Fund-UNICEF-1984). Anemia is not confined to pregnant women alone but also has effect on other population in the society. For infants, it is caused due to combination of limited iron stores at birth, timing of umbilical cord clamping, timing and type of complementary food intake and frequency of childhood illness.

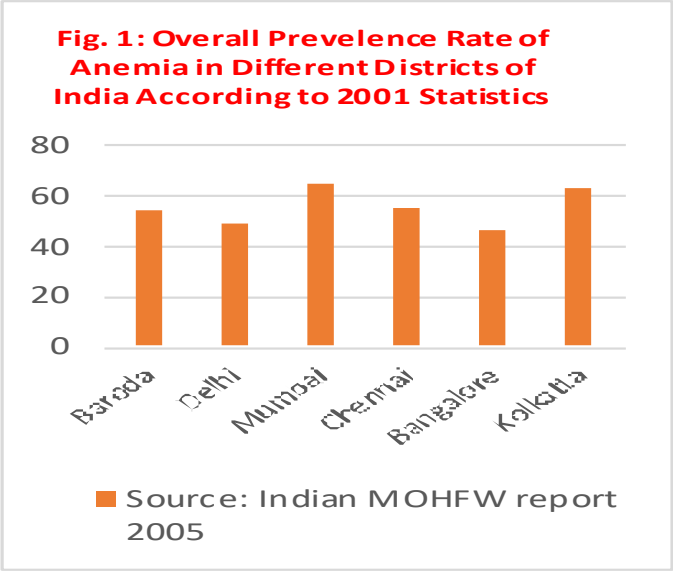
About 30- 40 percent of newborn suffer from low birth weight due to maternal anemia and malnutrition (Park and Park, 1985).

Low level of Hb among children enhances morbidity from various infections, especially children aged between 6-24 months (Stolzfus and Dreyfuss, 1998).

Therefore, there is 'Double Burden' in the society caused by anemic mother and anemic children. Moreover, girl children are more prone to severe anemia than their male counterpart, because with increasing age, the prevalence of anemia declines among males (Swami, Thakur and Bhatia, 1998). The Hellen Kellar Institute for girls (1996) estimated that 83.9 percent girls of age between 12 and18 years in rural India were found to be anemic; the level is high among girls with no schooling (92.7 percent). Adolescent girls require continuous replacement of iron during menstruation (Brabin and Brabin, 1992). There is the 'vicious cycle of anemia' for women in India since girls are married and enter motherhood with poor iron status at very young ages. Anemia present from the childhood through adolescence aggravates during pregnancy causing maternal morbidity and premature birth of low birth weight baby.

Other than clinical factors, there are many other factors attributed as the causes of anemia in India. An analysis of the National Family Health Survey-2 data for Gujarat showed that the rate of prevalence is high among children with illiterate mother, low standard of living, working mother, belonging to Scheduled Caste (SC) and whose mothers are also anemic (Krishna Mohan, 2003). It is well recognized that unregulated fertility is associated with anemia; moreover, health hazard increases sharply after the fourth pregnancy. Though anemia is widely prevalent among women belonging to lower socio-economic strata of the society, it is not rare among the well-to-do classes of the society. The National Nutritional Anemia Prophylaxis Programme (NNAPP) was launched in 1972 during the 4th five year plan in India with the aim to curb the prevalence of anemia. One of the largest nutritional supplement programme, the Integrated Child Development Services (ICDS) scheme was initiated in 1975 in India to provide nutritious food to pregnant women and children.

Further, in 1991, the Government of India introduced policies to control nutritional anemia through promotion of iron rich food (greenl eafy vegetables: mustard leaves, Bengal gram leaves, colocasia leaves etc., shepu or sowa, cereals: wheat, ragi, jawar, bajara, pulses: sprouted pulses, and jaggery), provision of iron and folate supplements to high risk groups (all pregnant and lactating women, Intra-Uterine Device (IUD) users, and children between 1-5 years), and identification and treatment to severely anemic people.



The recently launched National Rural Health Mission (NRHM), 2005, undertakes programme once in a month in villages to educate mothers on health and nutrition.

In spite of the fact that th e Health and Family Welfare Department in India has policies to provide iron supplement to pregnant women to prevent maternal anemia, evaluation from large scale programme shows that maternal anemia has not declined significantly. Some plausible reasons are the side effects of the iron pills and also improper utilization of health service and personal beliefs (Fox, 1983; Galloway and Mcguire, 1994).

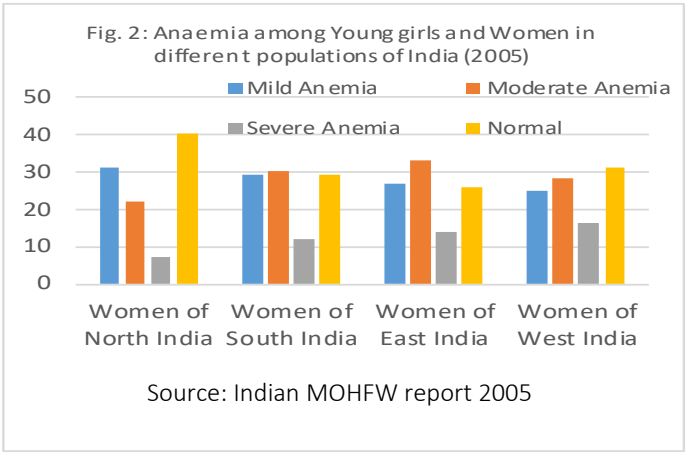
About 30- 40 percent of newborn suffer from low birth weight due to maternal anemia and malnutrition (Park and Park, 1985).). Low level of Hb among children enhances morbidity from various infections, especially children aged between 6-24 months (Stolzfus and Dreyfuss, 1998). Therefore, there is 'Double Burden' in the society caused by anemic mother and anemic children. Moreover, girl children are more prone to severe anemia than their male

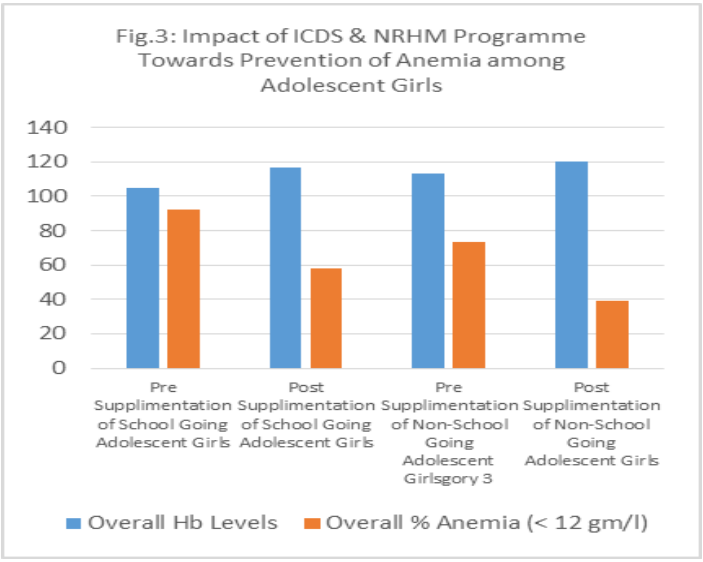
Impact of Indian Government policies towards prevention of Anemia among the young women:

Recognizing the importance of the adolescent population in achieving overall health and development of the country, a Government of India 13 Consultation meet in 1998 proposed implementation of demonstration projects at the district level with weekly administration of iron and folic acid. supplements. Anaemia during adolescence has been recognized as a problem since 2000 and many states introduced provision of routine iron-folic acid through the Adolescent Girls Scheme (AGS) of the ICDS.

The Government of India in the policy guidelines on anaemia control recognizes the importance of addressing anaemia in adolescent girls. Provision of weekly Iron folic tablets (WIFS), the "big" tablet given to pregnant mothers, is recommended to be made an integral 14 part of anaemia control .

The new Adolescent Girls. Scheme and school system offer opportunities to include WIFS in the package of services for adolescent girls. · WIFS has been included in the package of interventions for adolescent health in the State Plan of Actions of a number of states under the National Rural Health Mission. for adolescent health in the State Plan of Actions of a number of states under the National Rural Health Mission.





Responsibilities of Health Personnel towards prevention of anemia among young women:

The health personnel play an important role in prevention of anemia among the young women of rural India. Among the health personnel the community health nurse, midwifes, ASHA's, USHA', Health worker male and female functions at the rural as well as remote areas of the country can serve better in prevention of anemia among rural population. The main role of health personnel are

- Identification of high risk groups, low socio-economic families, underserved mothers etc.
- Regular health education regarding nutritional care of adolescent girls and young women.
- Carrying out of regular health checkups at schools and colleges.

(Continued on page No. 15)

NEONATAL RESUSCITATION

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Introduction:

Annually 126 million babies were born. The successful transition from intrauterine life to extra-uterine life is depends upon significant physiologic changes that occur after birth. About 90% of the infants complete the delivery process successfully without any special assistance. However, approximately 10% of newborn require some intervention and 1% need extensive resuscitative measures to survive. Resuscitation of neonate is an emergency, which requires every bodies help in labor/ delivery room. 70% of the babies with absent heart beat and weak fetal heart rate less than 100beats/minute can be resuscitated.

Meaning

Resuscitation is nothing but it is procedure which help the neonate to establish Airway, Breathing, and Circulation (also knowns as ABCs.) for life support.

Indication:

- Inadequate or ineffective respiration
- Inadequate heart rate
- Central cyanosis
- Other evidence of cardiorespiratory distress.

Neonatal resuscitation program:

The Neonatal resuscitation program is to educate and certify nurses, medical professionals and students in neonatal resuscitation. This program was introduced by American Academy of Pediatrics.

The main goal is to teach basic resuscitation skills for neonate/ newborn babies. Globally, the scientific guidelines based on the American Academy of Pediatrics (AAP) and American Heart Association (AHA) are published in October 2010.

This trend is accepted in almost all the countries and followed in all health institutions. Guidelines for cardiopulmonary Resuscitation and Emergency Cardiovascular Care of the Neonate are duly endorsed by Internationally Liaison Committee on Resuscitation (ILCOR). In India, the National Neonatology Forum (NNF) and the Indian Academy of Pediatric are propagating these guidelines through Neonatal Advanced Life Support (NALS) course workshops across the country.

Supplies and Equipment

Suction Equipment:

- Bulb syringe
- Mechanical suction and tubing
- Suction catheters, 5F or 6F,8F,10F,12F
- 8F feeding tube and 20ml syringe
- Meconium aspirator

Bag and Mask Equipment:

- Device for delivering positive-pressure ventilation, capable of delivering 90% to100% oxygen
- Face masks, newborn and premature sizes preferred cushioned-rim masks.
- Oxygen source.
- Compressed air source.
- Oxygen blender to mix oxygen and compressed air with flowmeter (flow rate up to 10L/min) and tubing.
- Pulse oximeter and oximeter probe.

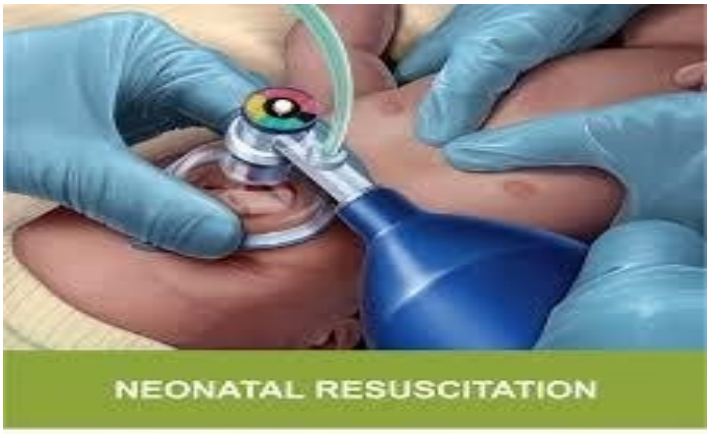


Fig: Neonatal Resuscitation

Intubation Equipment:

- Laryngoscope with straight blades, No.0 (preterm) and No.1 (term).
- Extra bulbs and batteries for laryngoscope.
- Endotracheal tubes, 2.5- 3.0.3.5- 4.0 mm internal diameter (ID).
- Stylet (optional) & Scissors.
- Tape or securing device for tying endotracheal tube & alcohol sponges.
- CO2 detector or capnograph.
- Laryngeal mask airway.

Medication:

- Epinephrine 1:10,000(0.1mg/ml) – 3ml or 10ml ampules.
- Isotonic crystalloid (normal saline or Ringer's lactate) for volume expansion – 100 or 250ml.
- Dextrose 10%, 250ml.
- Normal saline for flushes.

Umbilical Vessel Catheterization Supplies:

- Sterile gloves & Scalpel or scissors.
- Antiseptic Lotion &Umbilical tape.
- Umbilical catheters, 3.5F, 5F. □ Three- way stopcock.
- Syringes 1,3, 5, 10, 20, 50ml.
- Needles 25, 21, 18 gauge

Miscellaneous:

- Gloves and appropriate personal protection.
- Radiant warmer or other heater source.
- Firm, padded resuscitation surface.
- Clock with second hand (timer optional) & Warmed linens.
- Stethoscope with neonatal head.
- Tape 1/2 or 3/4 inch.
- Cardiac monitor and electrodes or pulse oximeter and probe (optional for delivery room).
- Oropharyngeal airways (0, 00, and 000 sizes or 30, 40 and 50 mm lengths**).**

For Very Preterm Babies:

- Size 00 laryngoscope blade (optional).
- Enclosable, food-grade plastic bag (1gallon size) or plastic wrap.
- Chemically activated warming pad.

Steps of Resuscitation (According To Guidelines 2015)

Newborn who do not require resuscitation can be generally identified upon delivery by rapidly assessing the answer to the following 3 questions:

⇒ Term gestation?
⇒ Good tone?
⇒ Breathing or crying?

If the answer is" yes" for all the 3 questions, then the baby can stay with mother for routine care. If the answer is "no" to these assessment question, then baby should be moved to a radiant warmer to receive 1 or more of the following 4 initial action in sequence:

A. (Airway) – Provide warm and maintain normal temperature, position, clear secretions, dry, stimulate.
C (Circulation) – Initiate chest compression.
D (Drug) – Administer epinephrine and /volume.

Approximately 60 seconds or **"the Golden Minute"** are allotted for completing the initial steps because this is the most important step for successful resuscitation of the neonate.

Anticipation of Resuscitation:

Neonatal resuscitation need assessment of perinatal risk, an organized method for ensuring immediate access to supplies and equipment and standardization of behavior skills that help effective team work and communication. At least 1 person should be attended for every birth who can perform the initial steps of neonatal resuscitation and PPV. Additional personnel with resuscitation skills including chest compressions, endotracheal intubation, and umbilical vein catheter insertion should be available, immediately. Supplies and equipment should be in working condition and can used any time.

Once perinatal risk factors are identified, team should be mobilized and team leader should conduct pre-resuscitation briefing then identify interventions may be required and assign the roles and responsibilities to the team member.

Umbilical Cord Management:

Immediate cord clamping soon after birth is a common practice to quick transfer of the neonate for resuscitation. The delayed cord clamping (DCC) might be beneficial for neonate who did not need immediate resuscitation at birth.

Initial Steps:

The initiation of newborn resuscitation has 4 steps-maintain normal temperature of the neonate, position the neonate in a ''sniffing'' position to open the airway' clear secretions if needed with bulb syringe or suction catheter, dry the neonate and stimulate to breathe.

Maintaining Normal Temperature:

The baby should be placed under a radiant warmer so that resuscitation team has easy to access to the baby and the radiant heat helps reduce heat loss. The baby should not cover with blankets, leave the baby uncovered to allow full visualization and to permit the radiant heat to reach the baby.

Clearing Airway:

The baby should be **positioned** on the back or side with the neck slightly extended in the ''sniffing'' position. The goal is to move the baby's nose as far anterior as

far anterior as possible, creating the ''sniffing'' position. To help maintain correct position place a rolled blanket or towel under the shoulders. If no meconium is present, firstly suck the mouth and oropharynx then nose and nasopharynx. If meconium- stained amniotic fluid, suctioned should be done when head is delivered, otherwise known as "intra-partum suctioning''.

Initiating Breathing:

Tactile Stimulation: The baby fails to have despite drying and suctioning additional tactile stimulation may be provided by slapping or flicking the soles of the feet and rubbing back firmly. **Positive Pressure Ventilation (PPV)**: Administration of PPV is the standard recommended treatment for both preterm and term baby who are apneic. A flow-inflating or self-inflating resuscitation bag or T-piece resuscitator are appropriate devices to use for PPV. Assisted ventilation rates of 40 to 60 breaths per minute are commonly used. The primary measure of adequate initial ventilation is prompt improvement in heart rate and chest wall movement.

Laryngeal mask:

Laryngeal masks can achieve effective ventilation in term and preterm newborns at 34 weeks or more of gestation. A laryngeal mask may be considered as an alternative to tracheal intubation if face-mask ventilation is unsuccessful in achieving effective ventilation.

Endotracheal Intubation:

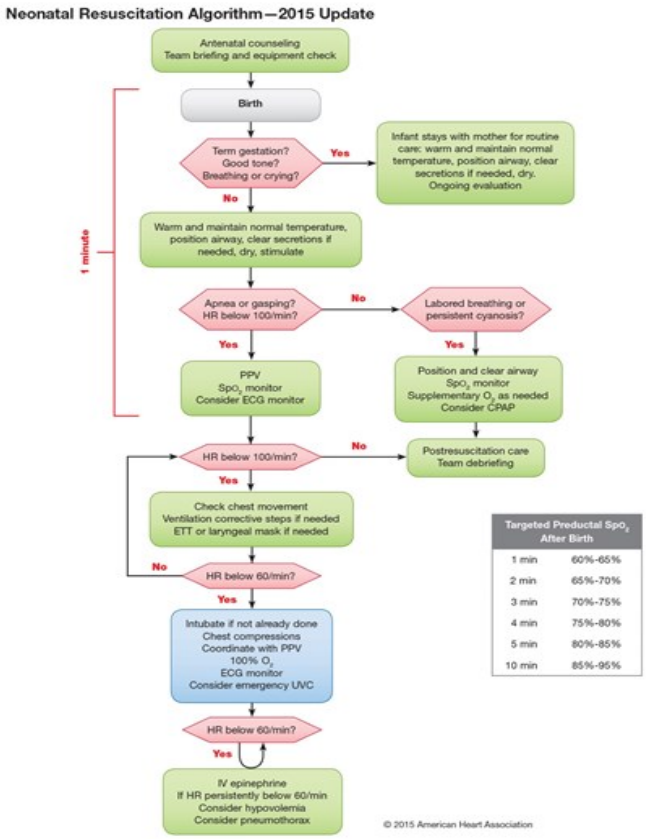
Endotracheal intubation may be indicated when bag-mask ventilation is ineffective or prolonged, when chest compressions are performed, or for special circumstances such as congenital diaphragmatic hernia.

Maintaining Circulation:

Chest Compressions: If the heart rate is less than 60/min, chest compressions are indicated. Rhythmic compressions (120/min: ratio 3:1) are delivered on the lower third of the sternum to a depth of approximately one third of the anterior-posterior diameter of the chest.
Two techniques have been described: compression with 2 thumbs with the fingers encircling the chest and supporting the back (the 2-thumb technique) or compression with 2 fingers with a second hand supporting the back (the 2finger technique).

Drugs (Medication):

Drugs are rarely indicated in resuscitation of the newborn baby. However, if the heart rate remains less than 60/min despite adequate ventilation with 100% oxygen (preferably through an endotracheal tube) and chest compressions, administration of epinephrine, volume, or both, is indicated.



Post- Resuscitation Care: Baby who require resuscitation are at risk of deterioration after their vital signs have returned to normal. Once effective ventilation and/or the circulation has been established, the baby should be maintained in or transferred to an environment where close monitoring and anticipatory care can be provided.

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PLUMBISM IN CHILDREN

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Introduction:

It's a silent killer that could be taking a heavy toll on young children. Plumbism is a medical term. It is used to refer to lead poisoning. Plumbism occurs when Lead blood level is equal or greater than 10 µg per deciliter. At this level cognitive deficits may become visible. Lead poisoning in childhood results from the indigestion of lead-based paint or plasters etc. Lead poisoning is a cumulative toxicant, particularly harmful to young children and can affect multiple body systems.

Children are the most easy lead poisoning targets. This is most likely to occur in children who live in houses containing paint or plaster in poor condition or houses undergoing renovation; Children living near lead smelting or processing plants; having parents or other household members working in lead related occupations; having diet deficit in iron, calcium, or zinc; having developmental delays and those who eat non-food objects throughout childhood

According to a WHO study, lead exposure is estimated to account for 1, 43,000 deaths per year with the highest burden in developing regions. A pan-India analysis of 733 blood samples collected over last one year has revealed that 23.47% (172 samples) of the total samples tested positive with Lead poisoning in children.

Sources of Plumbism or Lead Poisoning:

The most common sources of Plumbism are the Toys, cribs, furniture, crayon, plaster putty, soil, paint, contaminated food stuffs, calcium supplements, floor, some cosmetics, crafts like ceramic glaze, paint pigments, stained glass making material, dust, burning painted wood, and some occupations such as auto repairing, mining, smelting, battery manufacturers, construction painting, pipe fitting, plumbing, welding etc.

On the other hand the Indian scenario accelerating the risk to children to getting lead poisoning very easily i.e. A serious threat to health, the metal can be found in the paint on idols and some yellow school buses as well as in battery backu-ps packs and cheap toys.

The annual immersion of painted idols in rivers and lakes across the country raises lead levels of the water and certain types of piping can add lead to the tap water. Even some traditional medicines contain the toxic heavy metal.

Toys are primarily to blame. Though some of the more reputable firms ensure lead-free paint and safe plastic, the majority of the toys have toxic paint that is absorbed even through the baby's tender skin. A host of other daily-use items may also be hazardous, like cheap plastic mugs, lead pencils, cheap colours and crayons. Wall paints can also be very dangerous.

The level of lead in blood should not be more than 10 µg/dL in children and no more than 20 µg /dL for adults. But 150 of the 250 blood samples of Kolkata kids tested at a Mumbai laboratory showed alarmingly high levels of lead contamination. Every fifth child in Kolkata is believed to be a victim of lead toxicity. Children are more susceptible because they have smaller bodies. The rise in the number of children suffering from irritability, fatigue, weight loss, memory loss and abdominal pain is directly linked to lead poisoning

Polluted water and soil, some medicines and cheap cosmetics could also be responsible, says the study. "In many cases, these products violate the maximum permissible limit of lead in colour additives. Scratching their surfaces releases lead dust which easily gets into children. Since lead can't be ejected by the system, it remains stored in the body and generates toxicity," In some cases, children get affected if their parents work in hazardous industries where lead is used

The primary sources of lead toxicity are believed to paints and pencils used by kids. Paint peeling off the walls can be the most dangerous as it produced lead dust that easily affects children. "Anemia and gum infection among children is often an indicator of lead poisoning. Also, it slows down cerebral functioning leading to loss of memory and poor academic performance. These symptoms are significantly common among children but lead poisoning is rarely detected until the child starts having difficulty in memorizing lessons. Even cooking utensils are often the source of lead

The symptoms can overlap with symptoms of other illnesses for children, they include: Hearing loss Learning difficulties Loss of appetite Developmental delay, such as speech delay, Fatigue, Irritability GI problems such as constipation, vomiting and abdominal pain, Anemia, Seizures, Kidney and nervous system damage, Death can result from very high levels in the body Babies who

are exposed to lead before birth may experience Learning difficulties Sever growth delay and so on

General Management of Lead Poisoning:

The identification of a neonate, infant, or child who has been exposed to lead must be viewed as a public health emergency. The only effective long-term treatment is ending further lead exposure by eradication of environmental lead contamination. Because the cognitive and behavioral effects of lead toxicity are not reversible, primary prevention of lead exposures is the single most important strategy in the management of childhood lead poisoning.

Chelation Therapy.

In this treatment, administering medication that binds with the lead so that it's excreted via urine. Chelation therapy may be necessary depending upon the degree of blood lead elevation However, it has limited efficacy. With chronic ingestion or inhalation, lead can be incorporated into the skeletal system and become an endogenous reservoir of lead exposure that is resistant to elimination while chelating agents can bind to lead in blood and they are ineffective in removing lead from soft tissues and the deep bone stores.

EDTA Therapy.

Doctors treat the children with lead levels greater than 45 mcg/dL of blood with one or more of three drugs, most commonly a chemical called ethylene-di-amine-tetra-acetic acid (EDTA). Depending on lead level child may need more than one treatment. In such severe cases, however, it may not be possible to reverse damage that has already occurred.

The optimal treatment strategy is to protect children from lead poisoning while there is no way to keep yourself or your family totally safe from lead, there is much that you can do to protect your family from toxic levels. In general, lead is found outdoors and in specific environments. You or your child are not likely to become exposed to a harmful amount of lead within your house

How can we protect children from Plubisim?

The best way to control the health hazards caused due to lead exposure is prevention

Wash hands and toys: To help reduce hand-to-mouth transfer of contaminated dust or soil, wash your children's hands after outdoor play, before eating and at bedtime. And wash their toys regularly.

Clean dusty surfaces: Clean your floors with a wet mop and wipe furniture, windowsills and other dusty surfaces with a damp cloth.

Run cold water: If you have older plumbing containing lead pipes or fittings, run your cold water for at least a minute before using. Don't use hot tap water to make baby formula or for cooking.

Prevent children from playing on soil: Provide them with a sandbox that's covered when not in use.

Eat a healthy diet.: Regular meals and good nutrition may help lower lead absorption. Children especially need enough calcium and iron in their diets.

Avoid the use of cheap and unbranded toys: As the manufacturers are using low quality materials and paint thus a good carrier of lead.

Other measures of prevention that have been studied include parental education, dust control, and soil abatement. Educating parents and caregivers about the prevention of lead exposure does not have a notable effect on reducing already elevated lead levels in children. Soil abatement, which involves removing contaminated soil and replacing it with fresh soil help to reduce the risk. There are many common cultural traditions that are strongly imposed upon Indian families. The ritual of applying surma, kajal, bindhi paste to ward off evil ironically resulted in a case of serious lead poisoning. Be sure to keep track of everything that is put in child's mouth (food, toys, etc.) and applied to his or her skin. Virtually any food that comes out of a package and is put into your mouth and especially child's mouth poses a potential threat to their health.

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CORD BLOOD BANKING: RETRIEVE A NEW LIFE WITH SELF REPAIR KIT

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Introduction:

Once umbilical cord is considered a waste product was discarded with the placenta, it is now known to contain potentially lifesaving hematopoietic stem cells. It offers several distinct advantages over bone marrow or peripheral stem cells and it should not compromise obstetric or neonatal care.

Definitions:

Cord blood: It is the blood that remains in placenta & its attach umbilical cord after child birth. Cord blood contains potentially lifesaving cells called stem cells. (The stem cells in cord blood are different from embryonic stem cells.)

Cord blood collection: The procurement of cord blood for banking and administration before and/or after the placenta is delivered.

Ex utero: The collection of cord blood cells from the placental and/or umbilical cord vessels after the placenta has been delivered.

In utero: The collection of cord blood cells from the placental and/or umbilical cord vessels after the infant donor has been delivered and separated from the umbilical cord, but before the placenta has been delivered.

Cord blood banking involves collecting blood left in your newborn's umbilical cord and placenta and storing it for future medical use.

Benefits of cord blood banking:

- **Cord blood collection is easy and poses no medical risk to the mother or newborn baby: It is collected from delivered placenta & it's not interfere with mother and baby's care.**
- **Cord blood is collected in advance, tested and stored frozen, ready to use:** All routine testing is completed and the unit is stored frozen, ready to use. If a match is found, it can be reserved immediately. Confirmatory HLA typing and any special testing required is usually completed within 5 days.
- **Cord blood transplants do not require a perfect match:** Studies have shown that cord blood transplants can be performed in cases that the donor and the recipient are partially matched. In contrast, bone marrow grafts require 8/8 matching in most cases.
- **Cord blood stem cells are currently used to treat over 80 life threatening diseases:** doctors have increasingly turned to cord blood as an alternative to bone marrow for use in stem cell transplants. Because cord blood does not need to be as closely matched to patient, it is usually easier to find an appropriate match.
- **It protect child & his family from long term health problems:** cord blood & cord tissue are rich sources of stem cells. These cells have unique quality that it has an ability to renew & replace cells in blood, tissues, organs & immune system.
- **Cord blood stem cells are potential match for other family members too.**
- **Cord blood transplants are associated with lower incidence of GvHD:** Immune cells in cord blood are less likely attack patient's own tissue as seen in bone marrow transplant.
- **Cord Blood Transplants are associated with lower risk of viral infections:** Cord blood is also less likely to transmit certain common viruses, like Epstein-Barr virus (EBV) and cytomegalovirus (CMV), potentially lethal infections for transplant recipients.

Indication of cord blood banking:

To treat many life-threatening diseases including leukemia, certain other cancers and blood, immune and metabolic disorders in baby, his family and other patient.

Contraindication of cord blood banking:

Absolute contraindications:

- Mother having HIV infection, active syphilis, acute infections or active clinical forms of chronic infection with HBV and HCV (B and C hepatitis), infection contacted during pregnancy with Toxoplasma Gondi, rubella virus, cytomegalovirus
- Child is born with a genetic condition such as muscular dystrophy or spina bifida, and then the stem cells would have that condition.

Relative Contraindications: the state of inactive chronic carrier of HBV or HCV

Advantages of cord blood cell transplant over bone marrow transplant:

Cord blood stem cells are biologically younger and are more flexible compared to adult stem cells from other sources like bone marrow.

When saved, they have unique qualities and advantages as follows:

- Less risk of complications & viral infection when used in transplants
- Ability to use one's own stem cells for conditions that currently lack medical treatment options, also known as "Autologous transplantation"
- Immediately available and can minimize disease progression in early treatment
- Preserving them "stops the clock" and protects the cells from aging and being exposed to environmental factors and common viruses that can decrease their function
- High proliferation capacity

Cord blood collection procedure:

Cord blood collection can begin with the third stage of labor, immediately after delivery of the baby. (Please note that the outside of the cord blood collection bag is not sterile, so it should not be placed on a sterile operative field in caesarean section. The cord blood will be collected into a 150 ml blood collection bag containing anticoagulant agent.

- Once the baby born, choose a site 4-6 inches from the cut end of cord for withdrawal of blood.
- Wipe the site with gauze to remove blood. Use iodine swab to clean the chosen puncture site. After cleaning the site, do not allow secretions, nonsterile items, or maternal blood, to contaminate the puncture site.
- Remove the needle cap from the cord blood collection bag with use of sterile technique.
- Insert needle into umbilical vein at puncture site. As the blood begins to flow, hold the needle in place and lower the collection bag to allow blood to flow into the bag by gravity.
- While filling, gently rotate the bag to mix blood with anticoagulant.
- When blood flow stops, remove the needle and discard in a sharps container.
- Write mother's name and social security number on label provided in kit. Affix provided label on collection bag.
- Wrap cord blood bag in absorbent pad and place in large plastic bag.

Cord blood storage: Since cord blood banking has only been in existence for 25 years, no scientific data is available to prove cord blood stem cells can be stored for longer than that. However, scientists have reported that cryogenically preserved cells have no expire date, and frozen cord blood possibly can be stored indefinitely. This is supported by key fact that **"Cord blood stem cells are stored at or below -190 degrees Celsius, where biological activity ceases".**

Conclusion:

Cord blood having the stem cells which is utilize for more than 80 life threatening diseases and have additional befits over the bone marrow transplantation. The cord blood collection has simple procedure which gives new life not only to baby but his family members & other patients who find at least partial match.

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Continued from page No. 8

- Effective implementation of ICDS and NRHM programmes.
- Regular monitoring of Antenatal and Postnatal mothers.
- Providing Health education regarding family welfare and promoting people towards adaptation of family planning methods.
- Ensuring basic sanitation and safe drinking water supply to the community area.
- Maintenance of records and reports.

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EPISIOTOMY: AVOIDING THE UNKIND CUT

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Introduction

Labour is a wondrous act of nature and unique to every childbearing women. It is a transformative and special event in a women's life. It is the magic of creation. The onsets of motherhood present a unique set of physical, emotional and psychological challenges.

Episiotomy is a common surgical procedure performed during second stage of labour. The first performance of episiotomy was done in 1742, when perineal incision was made to facilitate difficult deliveries. It is made both to prevent tearing of the perineum and to release pressure on the fetal head with birth. It is the only procedure in obstetrics is performed without the patient's specific consent. Episiotomy rates vary widely worldwide, depending on whether the procedure is used restrictively / routinely. In India the birth rate is very high 56% of women had an episiotomy compared to the 46% of white women. An episiotomy is a surgical cut in the muscular area between the vagina and the anus (the area called the perineum) made just before delivery to enlarge vaginal opening.

Approximately 70% of women with a vaginal birth experienced some degree of damage to the perineum due to tear (or) episiotomy and needed stitches. This is the most common source of infection in the days after giving birth.

Side effects of episiotomy:

Many women undergo episiotomy while delivering a baby. Episiotomy could lead to serious side effects, thus various researches are being done on how to prevent an episiotomy. A woman can suffer from infection, bruising, swelling and bleeding post-delivery. Mother may have to keep away from having sex for several weeks or even months due to painful scar after an episiotomy. Episiotomy can take a long time to heal.

Avoiding an episiotomy:

There are several things pregnant mother can successfully avoid unnecessary episiotomy. Here are some positive things which pregnant mother can do during pregnancy and establish labour.

During Pregnancy

Perineal Massage

- Perineal massage involves loosening the muscles between vagina and perineum during pregnancy, to prepare for giving birth. This will help the opening of the vagina to stretch as the baby emerges into world.
- Massaging her perineum towards the end of pregnancy can reduce risk of episiotomy. It may also reduce the risk of having a tear. Even if she had a baby before, perineal massage can help to reduce discomfort after the birth.
- Perineal massage increases the elasticity of perineal muscles by doing daily perineal massage starting from about 33 to 34 weeks of pregnancy.

How to Perform Perineal Massage?

Wash hands thoroughly, trim nails to remove sharp edges. Choose a comfortable position. This could be sitting or lying down or could try standing with one foot on a chair and apply the lubricant to the fingers and thumb and also to the entrance of vagina (olive oil, sweet almond oil, vitamin E, etc.). Place the thumbs into the base of the vagina up to the first joint, making sure they are well lubricated. Using gentle but firm pressure, move the thumbs from the base of the vagina up the side walls as if making a "U", but remembering to avoid the urethra. As there is a feel a tingle or stretching, hold the position until it subsides and then continue upward. Return the thumbs to the base of the vagina and repeat.

Kegel Exercises:

Kegel exercises are also effective at developing awareness of birthing muscles and in preserving the integrity of the pelvic floor. These exercises are not recommended for avoiding episiotomy if you already have urinary stress incontinence.

Performing pelvic floor exercises:

- Empty the bladder.
- While exhaling, tighten the pelvic floor muscles.
- Hold for a count of 10. Relax for a count of 10.
- Perform 10 repetitions three times daily.

These pelvic exercises can be performed any time and any place. Many women will perform them as part of their perineal massage routine.

Continued on page No 26

VENTRICULO PERITONEAL SHUNT FAILURE: Causes and Risk Factors

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Introduction:

Hydro means Water and Cephalous means Head. Hydrocephalus is a condition in which abnormally accumulation of cerebro-spinal fluid in the brain. Because of accumulation of cerebro spinal fluid in the brain which increase the intra cranial pressure inside the skull and progressive enlargement of head.

Another term to describe hydrocephalus is communicating and Non communicating hydrocephalus. if there is no any blockage between CSF Pathway but failure in absorption of Cerebro Spinal Fluid OR Excessive production of CSF is known as Communicating hydrocephalus. If there is any obstruction and blockage due to tumour which is known as Non-Communicating Hydrocephalus.

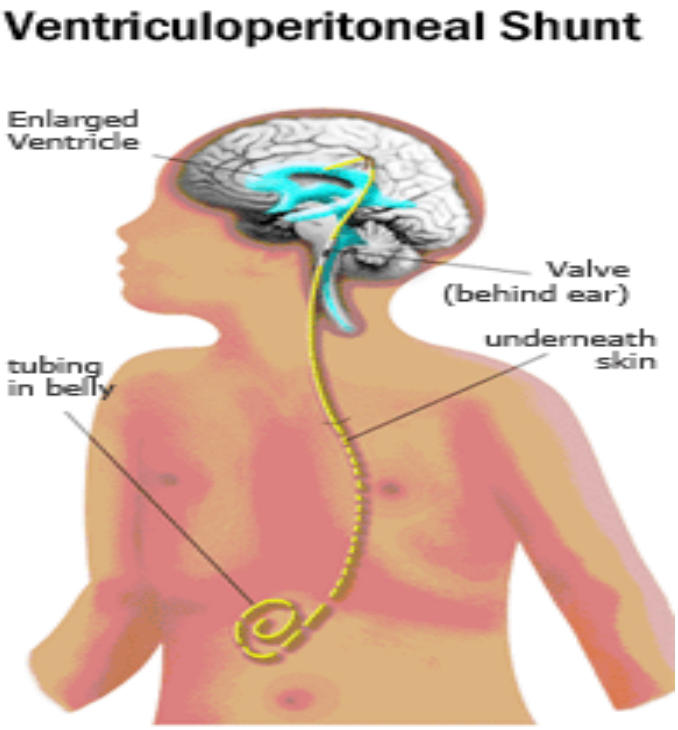
Hydrocephalus medical condition which represent the features include Excessive enlargement of head, Delayed closure of fontanel, tense and bulging fontanel with open sutures, Alteration of Muscle tone, Delayed head Holding Sun-Set eyes, Macewen's sign(Cracked pot Sound), Detoriation of mental activities, Increased intra cranial pressure with papilledema, Convulsion, Lethargy, stupor and coma also present.

Management of the symptoms intra cranial or extra cranial shunt is done to bypass the obstruction and to divert the CSF from the ventricular system to other compartment. The management of Hydrocephalus has challenged to all health team members because the unique nature of CSF dynamics in each children. There are various types of shunt are available Such as Ventriculoperitoneal shunt, Ventricular- Atrial Shunt and ventricular- Pleural shunt. Most commonly Ventricular- peritoneal shunt is used for the treatment of Hydrocephalus. An implanted shunt diverts CSF from the ventricles within the brain or the subarachnoid Spaces around the brain and spinal cord to another body region where it will be absorbed.

Shunt Failure

An estimated 50% of shunts in the paediatric population fail within two years of placement and repeated neurosurgical operations are often required. Shunt failure is a Partial or complete blockage of the shunt that causes improper function of it. When Shunt blockage occur, CSF accumulates and can result in symptoms of untreated Hydrocephalus.

A Shunt blockage present due to blood cells, tissue or bacteria stick to any part of the shunt. Mainly shunt are very durable. But their components can become disengaged as a result of child grows, and occasionally they displace from where they were originally placed. Sometime valve will fail because of a mechanical mal function.



Shunt Infection

Shunt infection is caused by a individual's own bacterial organisms and isn't acquired from other children or adults who are ill. The most common infection is Staphylococcus Epidermises, which is normally present on the surface of a person's skin and in the sweat glands and hair follicles deep within the skin.

This type of infection is most likely seen one to three months after surgery, but can occur up to six months after the placement of a shunt. People with ventriculoperitoneal (VP) shunts are at risk of developing a shunt infection secondary to abdominal infection.

Other reason for Shunt Failure

Over drainage causes the ventricles to decrease in size creating slit-like ventricles as a result of the brain and its meninges pulling away from the skull. Slit-like ventricles, sometimes called slit-ventricle syndrome (SVS), are most commonly a problem who have been shunted since childhood. A particular symptom of SVS is severe intermittent headaches that are often relieved when lying down.

Continued in page No.20

A CONCEPT NOTE ON MENTAL HEALTH OF OLD AGE

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Introduction:

India is graying. There are about 100 million Indians above the age of 60 years. Life span has increased from 32 years in 1947 to 54 years in 1980 and 63 years presently. With better standard of living and medical breakthroughs there is life beyond sixties.

Moreover in the present day period of rapid urbanization and changes, breakdown of the joint family system, migration of youth to the cities and abroad, inadequate living space and generation gap have had a particularly telling effect on the elderly who get marginalized and sadly neglected, falling an easy prey to a host of mental illnesses.

Psychological problems leading to mental problems in old age:

More elderly women than men are prone to developing psychological problems. Widowed state Recent death of spouse, loss of companionships, income etc. Unemployed condition leading to insecurity and dependency on others. Low social class Lack of awareness, due to poor education Neglect of problem. Living alone Feeling of neglect, loneliness, social isolation. Physical illness or disability. Sensory deficit Impaired vision or hearing. Nuclear families. Special stressors like Retirement, loss of status, fall in income, loss of health, lack of purpose in life.

Bereavement

Loss of a close relative or friend, especially spouse. Grief is usually a mix of emotions such as sorrow and disappointment along with anger, guilt and anxiety. It can precipitate psychiatric disorders such as Depression, Psychosomatic illness or even Suicide.

Mental functions that can get affected with ageing:

Short term memory
Speed of response
Motor coordination

Mental Illnesses in Old Age

Depression: In spite of strong family bonds and cultural practices that revere the aged, depression still ranks as the most prevalent psychiatric illness of the aged, which is more common amongst women than in men. The common symptoms are sad mood, sleep disturbance, anxiety, excessive preoccupation about one's body or health, feelings of worthlessness, loss of purpose in life, suicidal ideation, loss of energy, loss of pleasure in interest and usual activities, poor appetite etc.

Treatment:

- Physical exam and routine investigations to rule out presence of a physical illness.
- Anti-depressant drugs are the treatment of choice in most cases of moderate to severe, under the supervision of a psychiatrist.
- Psychotherapy to identify life stresses, areas of conflict, social support systems to help the person cope better with his or her problems and crises.

Anxiety disorders:

This is usually associated with depression and hopelessness about the future, especially related to death and dying. Guilt feelings may also arouse anxiety. Lack of a productive life may lead to apprehensions about economic sustenance. Previously existing anxiety traits can also worsen at this age leading to restlessness, tremor of hands and poor sleep. Treatment includes anti-anxiety drugs and supportive psychotherapy.

Hypochondriasis:

This is also mostly associated with primary depression, probably due to greater self-centeredness and proneness to physical illness, leading to unnatural preoccupation with bodily functions, especially of digestion, evacuation, bones and joints. Psychologically, these may represent an unconscious expression of the person's emotional dependency needs.

Paranoid Disorders:

Present in nearly 10% of psychiatric patients over 60 years, more commonly in women. Prominent features are persistent feelings of being presented by people around him or her, or intense feelings of jealously, or bizarre complaints involving organs or parts of the body (like insects crawling over) often to delusional proportions and many a times even complain of hallucinatory voices. Stressful circumstances, family breakdown, isolation and loneliness are associated with paranoid disorders.

Treatment:

They respond well to antipsychotic drugs with a careful monitoring of side effects by a psychiatrist. Some may require admission if they are non-cooperative.

Organic Mental Syndrome

Sometimes certain mental symptoms are presented when there is any kind of injury, infection or metabolic changes in the brain which regulates all our behaviors.

Two such important conditions are:

Delirium which is characterized by confusion, disturbance of attention, disorientation and perceptual distortions such as illnesses and hallucinations. Speech is incoherent, sleep is disturbed and the person is restless.

Dementia (Alzheimer's disease and Multi infarct Dementia) which is characterized by loss of intellectual or cognitive functions which leads to gradual deterioration of social and occupational functioning and an ability to care for oneself. The main features are increasing forgetfulness, difficulty in finding words while speaking, inability to carry out even simple activities of daily living, errors in judgment and disorientation to persons, places or time.

Treatment:

In both these above conditions, a thorough examination and investigations under the supervision of a neurologist who also coordinates the medical treatment is absolutely necessary. Constant care, supervision and help to carry out daily activities is must as these people eventually becomes incapable of taking care of themselves.

Tips for coping with change

- Focus on the things you are grateful for.
- Acknowledge and express your feelings.
- Accept the things you can't change
- Look for the silver lining.
- Take daily actions to deal with life's challenges.

Tips for finding meaning and joy

- Pick up a long-neglected hobby or try a new hobby
- Play with your grandkids, nieces, nephews, or a favorite pet
- Learn something new (an instrument, a foreign language, a new game, a new sport)
- Get involved in your community (volunteer or attend a local event)
- Take a class or join a club or sports team
- Travel somewhere new or go on a weekend trip to a place you've never visited
- Spend time in nature (take a scenic hike, go fishing or camping, enjoy a ski trip)
- Enjoy the arts (visit a museum, go to a concert or a play)
- Write your memoirs or a play about your life experiences

Tips for staying connected

- Connect regularly with friends and family
- Make an effort to make new friends
- Spend time with at least one person every day.
- Volunteer.
- Find support groups in times of change.

Tips for exercising as you age

- Check with your doctor before starting any exercise program.
- Find an activity you like and that motivates you to continue.
- Start slow
- Walking is a wonderful way to start exercising
- Exercise with a friend or family member

Tips for eating well as you age

- Load up on high-fiber fruits, vegetables, and whole grains
- Put effort into making your food look and taste good
- Watch out for dehydration
- Make meals a social event

Tips for sleeping well as you age

- Naturally boost your melatonin levels at night
- Make sure your bedroom is quiet, dark, and cool,
- Develop bedtime rituals
- Go to bed earlier
- Increase your activity levels during the day

Tips for keeping your mind sharp

- Try variations on what you know.
- Work something new in each day.
- Take on a completely new subject.

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Continued from page No. 17:

Imaging studies are required to determine SVS, which is typically indicated by smaller than normal ventricles.

Under drainage causes the ventricles to increase in size and can fail to relieve the symptoms of hydrocephalus. To maintain a balanced flow of CSF it may be necessary to place a new shunt with a more accurate pressure valve. For those who have externally adjustable or programmable valves, the balance of flow can be restored by resetting the opening pressure.

Subdural hematoma occurs if blood from broken vessels in the meninges becomes trapped between the brain and skull.

Multi-lobulated hydrocephalus is a located (isolated) CSF compartment in the ventricular system that is enlarged and not in communication with the normal ventricle. It may be due to birth trauma, neonatal intraventricular hemorrhage, ventriculitis, shunt related infection, over drainage or other conditions. This complication may be difficult to identify because it is typically seen in infants and children who may be neurologically compromised. Surgical treatments include multiple shunt placement, ventricular catheters with multiple perforations or openings, craniotomy and fenestration (opening) of the intra-ventricular locations.

Seizures sometimes seen in people with hydrocephalus. There is no correlation between the number of shunt revisions or the site of shunt placement and an increased risk of developing seizures. Past studies have shown that children with hydrocephalus who have been treated with a shunt and who also have significant cognitive delay or motor disability are more prone to experience seizures than those without cognitive or motor delays. Studies have also indicated that seizures are not seen at the time of shunt malfunction, and that the most likely explanation of seizure disorder is the presence of associated malformations of the cerebral cortex.

Abdominal complications can occur in people with hydrocephalus treated with a shunt. The peritoneum or abdominal area is the most popular site for distal catheter implantation. Although ventriculoperitoneal (VP) shunts do not have fewer complications than ventriculoatrial shunts, the complications are less severe and have a lower mortality rate. Shunt complications that develop in the peritoneum or abdominal area include peritoneal pseudocysts, lost distal catheters, bowel perforations and hernias.

Conclusion

Hydrocephalus is a condition in which accumulation of CSF (cerebro spinal fluid) in the ventricles which create ventricles enlargement and brain compression.so, for that various correction approaches are useful to drain the water from brain ventricles through different cavities. and the most common approach is ventricular peritoneal shunt. but with the child growing there are various complication of shunting is occur. So that also need to manage carefully.

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FULL SPECTRUM VITAMIN –A

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Abstract

Vitamin A is an essential vitamin required for vision, gene transcription, boosting immune function, and great skin health. Overconsumption of vitamin A can lead to jaundice, nausea, loss of appetite, irritability, vomiting, and even hair loss. Vitamin A is a fat soluble vitamin, and therefore, needs to be consumed with fat in order to have optimal absorption. High vitamin A foods include sweet potatoes, carrots, dark leafy greens, winter squashes, lettuce, dried apricots, cantaloupe, bell peppers, fish, liver, and tropical fruits Vitamin A supplementation (VAS) is presently being undertaken in India among under 5 (U5) children for two possible benefits (i) to prevent nutritional blindness due to Vitamin A deficiency (VAD) and (ii) to reduce U5 mortality. The existing scientific evidence suggests that nutritional blindness due to VAD has been virtually eliminated and also the difference between U5 mortality rate and infant mortality rate is very low for VAS to have any meaningful impact. On the contrary, scientific evidence indicates that there could be side effects of the administration of mega dose of Vitamin A (MDVA). These side effects of MDVA have not been systematically investigated. The universal VAS should be discontinued immediately as there are no likely benefits to U5 children.

Introduction

Vitamin A is an essential nutrient needed in small amounts for the normal functioning of the visual system, growth and development, maintenance of epithelial cellular integrity, immune function, and reproduction. [1] Although Vitamin A deficiency (VAD) can occur in any age group, the most serious effects are seen in the preschool children.
In India, at present, under NPPNB, all children in the age group of 6 months to 5 years are administered the mega dose of VA (MDVA) as per the following schedule: [2] a total of 9 doses of MDVA are given till the child reaches 5 years of age.

- 6-11 months - one dose of 100,000 IU
- 1-5 years - 200,000 IU for every 6 months.

During the past 50 years, there have been significant changes in the epidemiology of VAD. The causes of morbidity and mortality among U5 children and the overall health scenario have improved in the country. However, administration of MDVA is being continued without reviewing the scientific evidence available on VAD. The health administrators and planners are possibly continuing the administration of MDVA to U5 children to maintain the tradition and faith in the Vitamin A supplementation (VAS) program which was initiated in 1970.

Reasons for Reduction in the Clinical Signs of Vitamin A deficiency

There has been a very low coverage of the national VAS program in the country. Percentage of children who received at least one dose of Vitamin A within 6 months preceding the survey as projected by the National Family Health Survey (NFHS)-2 (1998-1999) and NFHS-3 (2005-2006) was 17% in 6-35 months age children and 18% in 6-59 months children, respectively. [3],[4] Hence, the VAS had no major effect on the reduction of VAD.

The reduction in VAD is possibly linked to (i) reduction in the prevalence of severe protein-energy malnutrition in children, (ii) increase in immunization coverage particularly with measles, (iii) better health infrastructure, (iv) reduction in the overall morbidity due to higher use of antibiotics, (v) overall improvement in the dietary intake of children, (vi) improvement in the water supply and sanitation, (vii) higher availability of Oral Rehydration Solution (ORS) for the management of diarrhea, (viii) higher utilization of health-care facilities and overall economic progress in the country along with better educational status among women. All these factors in combination may have improved the nutritional status of children in the country and may have resulted in the reduction of VAD.

Mega Dose of Vitamin A and Under 5 Mortality: Scientific Evidence from India

A landmark study conducted in Indonesia on the impact of MDVA supplementation on U5 mortality was published in 1986. [5] This study revealed that there was a reduction of 34% mortality among U5 children who received MDVA as compared to controls. Based on the results of this study, the UNICEF and other international organizations promoted VAS, as a major child survival intervention for U5 children in the developing countries. The health administrators and planners of the developing countries were motivated to adopt VAS for reduction in U5 mortality.

During the 1990s, Indian scientists repeated the Indonesian study in Hyderabad to assess the effect of VAS on

U5 mortality rate (U5MR). This study was implemented with an improved research design, better quality supervision, quality control, and efficient statistical analysis. It was found that MDVA did not reduce the U5 mortality. [6] Another study in 1992 repeated in Sudan to assess the impact of MDVA on U5 mortality did not show any impact. [7]

Later in 2000-2004, a study was conducted in India to assess the effectiveness of VA on U5 mortality in the programatic conditions. [8] One million preschool children were included. It was the largest randomized control trial ever conducted. VAS was done for every 6 months. It was found that the absolute risk of death amongst children in the age group of 1-6 years who received MDVA and who did not receive MDVA was approximately 2.5% and 2.6% respectively. There was no dramatic impact of VAS on the U5 mortality.

Public Health Concerns on Vitamin A Supplementation

- *Mega dose of Vitamin A and diarrhea and acute respiratory tract infection-related morbidity and mortality*

Universal supplementation of MDVA contains 200,000 IU to all children in the age group of 6-60 months irrespective of their VA status. The RDA of Vitamin A per day is 1333 IU (0.3 mcg = 1 IU). [9] MDVA provides VA which is 150 times the RDA. It is a pharmacological dose.

Studies have documented that VAS could lead to a significant increase in the rate of pneumonia in well-nourished children who received 10,000 IU of Vitamin A weekly. A meta-analysis of studies was undertaken to assess the impact of VAS program on U5 morbidity from diarrhea and respiratory infections. The results concluded that VAS had no consistent overall protective effect on the incidence of diarrhea. However, it slightly increased the incidence of respiratory tract infections (RTIs). For this reason, authors concluded that high-dose Vitamin A supplements are not recommended on a routine basis for all preschool children, and should be offered only to individuals or populations with VAD. [10],[11]The differential effect of VAS in pneumonia and diarrhea raised the question and concerns of serious public health implications.

A recent review of 9 randomized controlled trials enrolling 33,179 children with RTI (31,379 in the community and 1800 in hospital) concluded that VAS may not be helpful for preventing pneumonia in normally nourished children and may rather worsen the condition. According to investigators, the study results should force the policymakers of the countries to think twice before continuing or starting a universal VAS program. [12]

- *Economics of universal Vitamin A supplementation*

According to a recent evaluation, the annual cost per child dosed is US$1.14 (Rs. 80) per dose. [14] In India, if we consider 160 million U5 children (15% of 1200 million), a total amount of Rs. 12,800 million is being spent for universal distribution of MDVA, which has questionable health benefits. Apart from the cost of Vitamin A, the distribution process consumes precious human and material resources meant for the delivery of primary health-care services.

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CHANGING TRENDS IN CARDIOVASCULAR DISEASE TREATMENT

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Introduction

The global burden of disease due to cardiovascular diseases (CVDs) is escalating, and the changing trends of CVD risk factors are identified among Indians experiencing rapid health transition. Contributory causes include: growing population with demographic shifts and altered age profile, socio-economic factors, lifestyle changes due to urbanization. Indians are also having genetic predisposition to cardiovascular diseases and adult are susceptible to vascular disease linking possible gene-environment interactions influencing ethnic diversity. Altered diets with more of junk foods along with diminished physical activity are additive factors contributing to the acceleration of CVD epidemics, along with all form of tobacco use.

The pace of health transition, however, varies across geographical regions from urban to rural population with consequent variations in the relative burdens of the dominant CVDs. A comprehensive public health response must be looked to plan over all strategies to integrate policies and programs that effectively impact on the multiple determinants of CVDs to provide protection over the life span through primordial, primary and secondary prevention. Populations as well as individuals at risk must be protected through initiatives, enable nutrition-based preventive strategies to protect and promote cardiovascular health.

Following are advancements took place recently in the field of CVD treatment which can help in reducing the risk and mortality associated with CVD.

- **New drugs cut cholesterol levels by half.** A new class of drugs, given by injection just once or twice a month, can slash harmful LDL cholesterol levels by about 50%. Studies are under way to see if any of these experimental agents, called PCSK9 inhibitors, prevent heart attacks or improve heart disease survival.

- **Replacing aortic valves without surgery.** Transcatheter aortic valve replacement (TAVR) offers a way to fix a stiff, narrowed aortic valve without open-heart surgery. It delivers the new valve through a thin tube called a catheter that is threaded into an artery in the groin and gently maneuvered into the heart. People who underwent TAVR had a higher one-year survival rate than people who had surgery to replace the valve. Currently, TAVR is approved for people considered too sick or high risk for valve replacement surgery.

- **Wireless sensors for severe heart failure.** A new device helps doctors keep tabs on people with serious heart failure by measuring pressure in the pulmonary artery, which transports blood from the heart to the lungs. The CardioMEMS HF System is implanted in the pulmonary artery. From there it wirelessly sends data to a doctor, who can then adjust the person's treatment as needed—often without an office visit. The goal is to prevent hospitaliza-

- **Weight-loss surgery for people with diabetes :** Weight-loss (bariatric) surgery helped obese people with diabetes eliminate most of their diabetes medications and get by with fewer drugs to control their blood pressure and cholesterol. Surgery was far more effective than weight-loss counseling plus frequent blood sugar testing, and drugs to treat diabetes. Being obese and having diabetes greatly increases the risk of cardiovascular disease.

- **New anti-clotting drug approved to lower risk of heart attack:** A new FDA-approved medicine that decreases blood clot formation lowers the risk of heart attack in people who have already had a heart attack or peripheral artery disease. Vorapaxar (Zontivity), the first in a new class of drugs called PAR-1 antagonists, prevents platelets (tiny cell fragments found in blood) from clumping together and forming clots.

- **A Better Drug for Heart Failure:** In a large clinical trial, known as Paradigm-HF, the new drug LCZ696 was used to treat heart failure, and it was highly effective. It achieved a substantial 20-percent reduction in death or repeat hospitalization compared with the best currently available therapies. Although the benefits of a reduction in deaths are self-evident, the importance of reducing readmission to the hospital should not be underestimated. Currently, 20 percent or more of patients hospitalized for heart failure are re-admitted within 30 days. This represents a significant burden for patients and the healthcare system.

- **Type 2 diabetes drug cuts risk of heart-related death:** After decades of coming up empty in the search for a diabetes drug that could lower heart risks, researchers believe they have found a medication that does just that. A new study with the drug Jardiance is the first to reduce deaths from heart complications. In the study, those who added Jardiance to their Type 2 diabetes treatment regimen had a 38 percent lower risk of dying from cardiovascular causes after about three years. Patients were also 35 percent less likely to be hospitalized for heart failure.

- **Less is more in ablation treatment for persistent AFib:** It's not necessary to burn extra tissue in the heart when treating persistent atrial fibrillation, or AFib, according to new research. AFib, which is a quivering or irregular heartbeat, affects an estimated 2.7 million to 6.1 million Americans. Some have paroxysmal AFib, which means their hearts go in and out of the quivering state. Others have persistent AFib and require medication to keep their heart in rhythm, but those medications do not always work. When medications alone aren't enough, catheter ablation is commonly used to nonsurgically ablate, or burn, the tissue causing the irregular beat so that a normal heart rhythm returns. The problem was, ablating only the pulmonary vein tissue wasn't thought to be as good for patients with persistent AFib as for those with

with paroxysmal AFib. To find out, researchers compared the strategy of burning only around the pulmonary veins with two more complex strategies involving more extensive ablation. Nearly 60 percent of patients who had the simpler procedure, called pulmonary vein isolation, were free of AFib 18 months later. That's a success rate similar to what ablation studies have found with paroxysmal AFib.

- **Lifestyle studies underscore power of healthy habits:**

⇒ ***Not enough to just cut saturated fats:*** How patients replace calories when cutting saturated fats makes a big difference when it comes to lowering coronary heart disease risk. According to the study, replacing 5 percent of calories from saturated fats with an equivalent amount of polyunsaturated fats or monounsaturated fats lowered heart disease risk by 25 percent and 15 percent, respectively. Replacing with whole grains lowered risk by 9 percent. Substituting refined starches or sugars didn't increase or decrease risk.

⇒ ***Bigger increases in exercise reduce heart failure:*** Guidelines recommend at least 150 minutes of moderate-intensity exercise a week, or about 30 minutes most days of the week. But to reduce the risk of heart failure, people should double or quadruple that, according to a study published in October in the AHA's journal**.** In the study, those who exercised two and four times more than the minimum recommended amount lowered their risk of developing heart failure by 19 percent and 35 percent, respectively."This shows that the minimum recommended is good, but much more physical activity is better to really have a potential impact to prevent heart failure," said Marie-France Hivert, M.D., an assistant professor in the department of population medicine at Harvard Medical School and chair of AHA's physical activity committee.Those who met the minimum 150-minutes-a-week number for exercise had a 10 percent reduction in heart failure risk.

⇒ ***Encouragement, support of healthy lifestyle:*** An Australian study demonstrated how regular text reminders to make healthy lifestyle changes could improve key risk factors in people with heart disease. The study, published in September in the *Journal of the American Medical Association*, used a low-cost automated program to send four text messages a week that offered advice and support to make lifestyle changes. After six months, levels of bad LDL cholesterol, systolic blood pressure and body mass index were lower among patients receiving the text messages. Text-message recipients also exercised more and were more likely to have quit smoking. The findings offer new ways to reach larger groups of patients, Hivert said."We just don't have enough behavior specialists and dietitians to talk with everyone who is at risk," she said. "Having an option like text messaging that is not as resource-intensive but still worked in a large study is very encouraging."

⇒ ***Less TV, more exercise and sleep to reduce obesity:*** In the first study to examine the health of children from diverse economic backgrounds around the world, researchers have linked certain lifestyle factors to childhood obesity. Among more than 6,000 children from a dozen countries, the major factors for childhood obesity worldwide were found to be lack of exercise, too much television time and not enough sleep.

⇒ ***Overlooked genetic snippets may control cholesterol, fat levels in the blood:*** Using powerful genetic survey techniques in an innovative way, researchers have uncovered four tiny snippets of genetic material that affect the way a person metabolizes cholesterol and triglycerides. Because lipid metabolism – the process in which fat and cholesterol are broken down and stored for energy – is so critical in the development of cardiovascular disease, the discovery could lead to novel treatments for atherosclerosis, Type 2 diabetes and more. The study is among the first to methodically analyze a class of so-called non-coding RNA molecules in the context of human disease, said Anders Näär, Ph.D., the study's lead researcher and a professor of cell biology at Harvard Medical School."The results challenge the gene-centric view of current human genetics efforts," he said. "We believe that miRNAs, as well as other types of non-coding RNAs, have been overlooked as important contributors to human physiology and disease."

Dissolving heart stents show promise: A new class of dissolving devices is beginning to pass clinical trial hurdles, raising the possibility of use in the coming years. In Europe, two such "bioresorbable" stents are commercially available, both tiny tubes, or "scaffolds," made of polymers that slowly dissolve away within a few years after surgery: Abbott Vascular's Absorb and Elixir Medical's DESolve. In theory, the experimental dissolvable devices may overcome some serious, long-term problems associated with today's metallic stents. Among those problems: The permanent presence of a metal stent prevents a vessel from flexing in response to normal physical changes, which can damage the vessel over time, and an accelerated form of atherosclerosis inside the stents can cause them to fail. According to several studies published this year, Abbott's Absorb, a dissolving stent that slowly releases the drug everolimus, performed nearly as well or just as well as its metal drug-releasing counterpart.

Conclusion

In the past years, progress in the fight against heart disease came in many forms, from novel drugs and procedures to improvements and newfound benefits from existing treatments. These advancements will empower existing technologies and management measures for treating CVD.

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BREAST FEEDING AND WORKING MOTHERS

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"It's not about my right to breastfeed; it's about my child's

Introduction

Breastfeeding is the feeding of an infant or young child with breast milk directly from human breasts rather than from a baby bottle or other container. Up to six months mother have to feed her baby exclusive breast milk this mean no other fluids, such as water, teas, juice, cereal drinks, animal milk or formula. Breast milk provides all of the nutrients, vitamins and minerals an infant needs for growth for the first six months, breast milk carries antibodies from the mother that help combat disease.

Up to 55 % of infant deaths from diarrheal disease and acute respiratory infections may result from inappropriate feeding practices. Optimal feeding for sustained child health and growth includes initiation of breastfeeding within the first hour of life, exclusive breastfeeding for six months, timely complementary feeding with appropriate foods, and continued breastfeeding for two years and beyond.

Breastfeeding also protects against the risk of allergy early in life, aids in child spacing and provides protection against infections other than diarrhoea (e.g. pneumonia).

The WHO recommends that, "All mothers should have access to skilled support to initiate and sustain exclusive breast feeding for 6 months and ensure the timely introduction of adequate and safe complementary foods with continued breast feeding up to two years or beyond".[1]
As breast feeding has so many advantages for mothers as well as children but in spite of having knowledge employed mothers neglect it because of lack of time and superstitious beliefs.

A UNICEF (2007) report states that India has close to 2.5 million children born every year, out of these, 1.9 million are under-five, who die in a year. Among the decreased children, 1.4 million children die just within one year and roughly one million children die within a month. Most of these deaths are associated with infant and young child malnutrition and other preventable disease caused mainly due to poor care and inappropriate infant feeding practices. Only 23.4 % newborn across across the country begins breast feeding within a hour of birth. Early initiation of breast feeding practices provides quality health care for children and reduces their specific health problems.

Exclusive Breast feeding protects your baby from infection.

Human milk provides virtually all the protein, sugar, and fat your baby needs to be healthy, and it also contains many substances that benefit your baby's immune system, including antibodies, immune factors, enzymes, and white blood cells. These substances protect your baby against a wide variety of diseases and infections not only while she is breastfeeding but in some cases long after she has weaned. Formula cannot offer this protection. Exclusive breastfeeding for six months resulted in less infections of many types compared to babies who did not breastfeed or babies who were partially breastfed.

Breast feeding make bonding between mother and baby.

Bonding with your baby, is not something that always happens immediately, and just as you would need time to get to know the love of your life, you will need to get to know and love your baby. You may not feel any different, but everyday care giving will bring you closer to your baby. The bonding between you and your baby will grow and increase over time.
Breast feeding is one of the best ways of bonding with your baby. It not only provide nutrition but comfort, nurturing and is also a time for mother and baby to study one another's faces. Breast feeding also releases oxytocin, which is a love hormone that promotes bonding.

Give 100% to your baby rather than other works.

If you have just started breast feeding, you are doing the right thing for you and your baby. Your time is very precious for your baby. Other work may be competed without your presence but breast feeding to your baby is impossible without you. You are everything for your baby for provides exclusive breast feeding, make bonding between you and baby and also protect your baby against infection.

CAUGHT IN THE WORLD-WIDE-WEB
A Note on Internet Addiction

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Introduction:
The Internet is the largest and most versatile source of information in the world today. With its web sites and chat rooms, it is a way of communicating with people in places all over the world. The Internet offers undeniable benefits in developing a child's ability to grow with modern technology, technical ideas, knowledge and other skills. But using the internet, particularly the social networking websites, unsafely puts the children at very high risk for many problems.

When children spend more than enough or agreeable time online they tend to be cyber addicts. As they spend more time on social networking, gaming, and other websites, particularly adult sites, they suffer from cyber addiction.

The latest edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-V) actually includes it as a disorder that needs further study and research. According to a study conducted by the Department of Adult Psychiatry in the Poland Medical University, Internet addiction was seen to be quite popular and common among young people, especially those who were only children. In fact, every fourth child is addicted to the Internet. This is an alarming statistic that needs to be addressed as soon as possible.

Similar to other addictions, those suffering from Internet addiction use the virtual fantasy world to connect with real people through the Internet, as a substitution for real -life human connection, which they are unable to achieve normally.

What causes an addiction to internet?
People who suffer from anxiety and depression are predisposed to having an Internet addiction. And some are those who suffer from lack of emotional support. There are also those who have a history of other types of addiction, such as addictions to alcohol, drugs, gambling and sex. Even people who are overly shy and cannot easily relate to their peers are also at a higher risk of developing Internet addiction.

What are the symptoms of an Internet addiction?
Internet addiction can be manifested in both emotional and physical symptoms. It can also cause social withdrawal, where individual feels it is more at ease interacting with people online rather than in person.

Emotional symptoms:
- Anxiety
- Dishonesty
- Euphoric feelings when on-line
- Difficulty to keep schedules
- Agitation
- Preoccupation with previous on-line activity or anticipation of the next on-line session.
- Increased use of Internet in order to achieve satisfaction.
- Feelings of guilt

Physical symptoms:
- Disturbed sleep-wake cycle
- Blurred vision
- Backache
- Headaches
- Joints pain
- Weight gain or loss

Sub-Types:
1. Cyber-sexual addiction: Engaging in viewing, downloading, and trading online pornography or involved in adult fantasy role-play chat rooms.
2. Cyber-Relational Addiction- Individuals who suffer from Chat Room Addiction become over-involved in online relationships or may engage in virtual adultery.
3. Net-Compulsions- Net Compulsions encompass a broad category of behaviors including obsessive online gambling, shopping, or stock trading behaviors. In particular, individuals will utilize virtual casinos, e-auction, or e-brokerage to lose excessive amounts of money and even disrupt other job related duties or significant relationships.
4. Information Overload – The wealth of data available on the World Wide Web has created a new type of compulsive behavior regarding excessive web surfing and database searches. Individuals will spend greater amounts of time searching and collecting data from the web and organizing information.

Internet is a productive tool, but it has serious negative consequences when used in an addictive manner. In particular, recent research suggests that compulsive use of the Internet is associated with increased levels of social isolation, increased depression, familial discord, divorce, academic failure, job loss, or significant financial debt as a result of obsessive online gambling, shopping, or day trading.

Self-Assessment: Am I Addicted to Internet?
Many studies are being conducted to measure the extent of Internet addiction. Dr. Kimberly S. Young has created a questionnaire based on other disorders to assess levels of internet addiction. It is called as Internet Addic

When to Return to Work?: A woman's decision to return to work must take into account her own needs as well as those of her family. If you are considering returning to work, try to delay your return until six to seven months after your child is born. Doing this will allow you to get to know your child and let her get to know you take the time to prepare yourself and your family, so that the adjustment is as easy as possible for everyone. Time your return to work so that stress is minimal. and at the six months complementary feeding should be started so that time is best to return to work.

Support for breast feeding in workplace.: Some policies are helpful to support breastfeeding women; working women must supported for breastfeeding such as providing crèche room for child, providing designated private space for breastfeeding or expressing milk, allowing flexible scheduling to support milk expression during work, giving mothers options for returning to work, such as teleworking, part-time work, and extended maternity leave, providing high-quality breast pumps, and offering professional lactation management services and support.

Conclusion: It is important that mother must give attention to her baby up to six months and her workplaces provide adequate breastfeeding facilities such crèche room as a room in which to express breast milk and a refrigerator, and allow mothers flexible time to express breast milk.

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Continued from page 16:

Sexual Activities: Sexual activities, especially orgasms, help increase blood flow to the area thereby enriching the health and stretching ability of the tissues.

Healthy Diet and Exercise: The more mother look after herself during pregnancy the more likely she will be fit, healthy and ready for labour and the quicker her body will recover after the birth. A healthy diet and exercise will all help.

In Established Labour: Breathing : Deep breathing nourishes the vagina with rich oxygen as there is a connection between throat and vagina and making more resilient and stretchy

Self-Directed Pushing : Pushing flat on back stresses the perineum and narrows the pelvic outlet as much as 30%. Directed or "purple pushing" where mother is flat on her back with nurses holding her legs as someone arbitrarily counts to 10 and tells mother to hold her breath is quite possibly the WORST thing. It makes absolutely no sense at all. It is called "purple pushing" depending on how light skinned they are, will actually turn purple during this stage. The best way to push is to follow the urge herself and to be in any position other than flat her back. Remember the contraction is to do the work of pushing the baby out. Mother truly doesn't need to add much extra effort.

Perineal Support : Warm compresses at the perineum feel great and encourage relaxation of tissues. Do not use hot compresses, as temperatures that are too warm can bring excess blood flow and cause swelling. Castor oil packs for the perineum can help relieve prenatal pain around the perineal region as well as make tissues supple and help prevent tearing during labour.

Conclusion: There are several cases where episiotomy is carried out without its requirement. Learning techniques to prevent an episiotomy is one of the important aspects of prenatal care to avoid trouble in the post pregnancy. Of-course one may need to undergo episiotomy in severe cases where it is unavoidable but it should not be routinely done.

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SOFA Score

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INTRODUCTION:

Sepsis-related Organ Failure Assessment score, also known as Sequential Organ Failure Assessment score (SOFA score), is used to track a person's status during the stay in an intensive care unit (ICU). The SOFA score is a scoring system to determine the extent of a person's organ function or rate of failure. The score is based on six different scores, one each for the **respiratory, cardiovascular, hepatic, coagulation, renal and neurological systems.**

Both the mean and highest SOFA scores are predictors of outcome. An increase in SOFA score during the first 24 to 48 hours in the ICU predicts a mortality rate of at least 50% up to 95%. Scores less than 9 give predictive mortality at 33% while above 11 can be close to or above 95%.

1. RESPIRATORY SYSTEM:

PaO_2 (Partial Pressure of Oxygen) / FiO_2 (Fraction of Inhaled O2) (mmHg)	**SOFA score**
< 400	1
< 300	2
< 200 and mechanically ventilated	3
< 100 and mechanically ventilated	4

2. NERVOUS SYSTEM

Glasgow coma scale	**SOFA score**
13–14	1
10–12	2
6–9	3
< 6	4

3. CARDIO-VASCULAR SYSTEM

Mean arterial pressure OR administration of vasopressors required	**SOFA score**
MAP < 70 mm/Hg	1
dop <= 5 or dob (any dose)	2
dop > 5 OR epi <= 0.1 OR nor <= 0.1	3
dop > 15 OR epi > 0.1 OR nor > 0.1	4

(Vasopressor drug doses are in µg/kg/min)

Drug abbreviations: dop for dopamine, dob for dobutamine , epi for epinephrine and nor for norepinephrine.

4. LIVER/HEPATIC

Bilirubin (mg/dl) [µmol/L]	**SOFA score**
1.2–1.9 [> 20-32]	1
2.0–5.9 [33-101]	2
6.0–11.9 [102-204]	3
> 12.0 [> 204]	4

If bilirubin is less than 1.2 mg/dl , the score is 0

5. COAGULATION

Platelets×10^3/µl	**SOFA score**
< 150	1
< 100	2
< 50	3
< 20	4

If platelet is more than 150×10^3/µl then score is 0

6. KIDNEY

Creatinine (mg/dl) [µmol/L] (or urine output)	**SOFA score**
1.2–1.9 [110-170]	1
2.0–3.4 [171-299]	2
3.5–4.9 [300-440] (or < 500 ml/d)	3
> 5.0 [> 440] (or < 200 ml/d)	4

CONCLUSION: The Sequential Organ Failure Assessment (SOFA) score is a mortality prediction score that is based on the degree of dysfunction of 6 organ systems. The score is calculated on admission and every 24 hours until discharge using the worst parameters measured during the prior 24 hours. It is believed to provide a better stratification of the mortality risk in ICU patients given that the data used to calculate the score is not restricted to admission values. The SOFA score can be used to determine the level of organ dysfunction and the mortality risk in ICU patients.

Continued on Page No. 31

EFFECTIVENESS OF RAJA YOGA MEDITATION ON PERCEIVED LEVEL OF STRESS AMONG NURSING STUDENTS

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Abstract

An evaluative approach with one group pre-test post-test study was conducted to find the effect of Raja yoga meditation on perceived level of stress among nursing students by Perceived Stress Scale (PSS). Purposive sampling technique was used to select the nursing institute for Raja yoga meditation. Perceived Stress Scale was used to collect the data. The stress areas covered were physical, emotional, social, cognitive and spiritual. 130 samples were selected by using simple random sampling method. Pre-test was administered using Perceived Stress Scale for stress and participants attended daily session of 20 minutes Raja yoga meditation practice for 21 days. On 22nd day Post-test was administered by Perceived Stress Scale for stress to the participants after Rajayoga meditation. The results of the study revealed that the post-test stress scores were lower than the mean pre-test stress scores. There was significant difference between the pre and post-test stress scores of the participants after Raja yoga meditation. (t_{59}) = 17.497 $P<0.05$). Thus it can be concluded that the Raja yoga meditation was found to be effective in all areas of stress among fresher man.

Introduction:

People can be considered as maladjusted and well adjusted. This can be done on the basis of their relationship with the environment and self. Maladjusted persons have problems in adjusting whereas a well-adjusted person is in good harmony with himself and environment. Good overall adjustment and a sense of wellbeing are very crucial factors in providing positive contributions to the society. When these are problems in adjustment it will lead to stress.

Stress is a non-specific response of the body caused by stressors, which are the agents or conditions capable of producing stress. Stressors can be physical, psychological, social, and spiritual. Stress is a threat to homeostasis. Stress is not always detrimental.

Objectives:

- To assess the perceived level of stress among nursing students by Perceived Stress Scale (PSS).
- To find the effect of Raja yoga meditation on perceived level of stress among nursing students.
- To find the association between the perceived level of stress and selected demographic variables like age, gender, religion, language proficiency and socioeconomic status.
- To compare the vital parameters before and after the intervention.

Methodology:

An evaluative research approach is used for this study. An evaluative research is an applied form of research that involves, finding out how well a programme, practice, procedure or policy is working . The main goal of the present study is to evaluate the effectiveness of Raja yoga meditation. In one group pre-test, post-test design the group is observed before and after the independent variable is introduced. This research method is used in case where it is not possible or feasible to have control groups.

Setting of the study: The present study was conducted in a selected nursing institute in Mangalore for assessing the perceived level of stress and the effect of Raja yoga meditation.

Population: In this study population comprises of 1st year B.Sc nursing students from selected nursing institute in Mangalore.

Sample: All the 1st year B.Sc nursing students of the selected nursing institute were selected for identifying perceived level of stress.

Sampling technique: In this study purposive sampling technique was used to select the nursing institute for Raja yoga meditation.

Plan for data analysis: It was decided to analyze the data by both descriptive and inferential statistics on the basis of objectives and hypothesis of the study. Master data sheet would be prepared by the investigator to analyze the data. The data will be analysed in terms of descriptive (mean, percentage, standard deviation, mean percentage), inferential statistics (paired 't' test and ANOVA method) is used to find the difference in vital parameters before and after Raja yoga meditation.

Analysis

Section I - Sample characteristics:

- Highest percentage (65%) of the subjects were in the age group of 17 – 19 years.
- Majority of (77%) the subjects were females.
- Highest percentage (78%) of the subjects belonged to Christian religion.
- Many of (41%) the subjects had income between 5000 and 10000.
- Only few (29%) of the subjects were proficient in English.
- Many (43.3%) of the subjects were studying only 2-4 hours/day.

Section II: - Calculation of perceived level of stress

The perceived level of stress was calculated by PSS. Out of 100 samples 66% of the subjects had moderate level of stress and 32% of the subjects had mild level of stress and 2% of the subjects had severe level of stress.

Section III: Effectiveness of Raja yoga meditation on perceived stress

1. Among 60 samples, 90% of the subjects had scores ranging between 71-110 in pre-test and 8.4% of them had scores ranging between 71-110 in post-test after Raja yoga meditation. This interpretation is substantiated by the finding that, in the pretest only 6.7% of subjects had scores ranging from 31-70 (mild stress) whereas in the posttest more than 91% of them were in mild stress. This indicates that the majority of subjects with moderate stress had a stress reduction to mild level.
2. Reduction of stress level in physical domain after Raja yoga meditation was found to be highly significant ($t_{(59)} = 15.966$ $p < 0.05$.
3. Reduction of stress level in emotional domain after raja yoga meditation was found to be highly significant. $t(59)=14.552$ $p<0.05$
4. Reduction of stress level in social domain after raja yoga meditation was found to be highly significant. $t(59)=12.65$ $p<0.05$
5. Reduction of stress level in cognitive domain after raja yoga meditation was found to be highly significant. $t(59)=13.392$ $p<0.05$
6. Reduction of stress level in spiritual domain after raja yoga meditation was found to be highly significant. $t(59)=9.354$ $p<0.05$

Conclusions and Future Scope of Research

The following conclusions were drawn on the basis of the findings of the study.

- The perceived level of stress was high among the fresher man
- In this study raja yoga meditation was found to be effective on stress among fresher man college students.
- The mean Pre-test stress scores of the participants were higher than the mean Post-test stress scores.
- The mean post-test scores for mild stress of the participants were lower than the mean pre-test scores for mild stress.
- The mean pre-test stress scores for moderate stress of the participants were higher than the mean post-test scores for moderate stress.

Nursing Implications:

The findings of the study have implications in the field of nursing practice nursing education, nursing administration and nursing research.

Nursing Education:

Fresher students residing in new environment are at greater risk for developing stress. Stress is a serious illness among the adolescents and is a serious medical problem. Research studies conducted among nursing students had proven that students undergo stress during their study. Students are expected to take responsibility in the health care setup, which will add burden to their stress.

Nursing Practice:

Nurses are in continuous interaction with the clients than any other member of the health care team. In hospital where students are dealing with patients, relatives and families, at the same time manage them. There will be more stress in the caregiver, patients and relatives. In order to understand the needs of the patients and to respect the individual's identity, nurses must be able to understand themselves first. So nurses must be educated to relax and to promote their health.

Nursing Administration:

Nurses are challenged to play the role of efficient administrators as well as practitioner. To perform the role of an efficient administrator, apart from knowledge in administration, nurses also must have good decision-making and reasoning abilities. Practice of meditation enables to develop a positive attitude to any situation that one may have to face, which is very essential for a successful administrator. In service education can be conducted for nurses regarding non-pharmacological measures for stress. Administrator must be aware of factors that add to the stress of nurses and nursing students. Hospital system must incorporate such system

Recommendations:

On the basis of present study, the following recommendations are formed for future study:

A similar study can be conducted to find out the effectiveness of raja yoga meditation on a long-term design.

A future study can be conducted to find out the effectiveness of raja yoga meditation with a larger sample for wider generalization.

An experimental study can be carried out on the effectiveness of raja yoga meditation among students with a control group.

Similar study can be done for the common people those who are facing stress in their lifetime.

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Diagnostic Questionnaire or IADQ. Answering positively to five out of the eight questions may be indicative of an internet addiction. Here are the questions:

- Are you preoccupied with using the Internet? Do you think about your previous or future online activity?
- Do you have the need to be online longer to be satisfied?
- Have you made repeated but unsuccessful attempts to cut back, stop or control your Internet use?
- Do you become moody, restless, irritable or depressed when you stop or decrease your Internet use?
- Is your time spent online longer than what you originally planned?
- Did your online use negatively affect a significant relationship, education, career or job?
- Do you conceal the extent of your Internet usage from your therapist, family or others?
- Does the Internet serve as an escape from problems or relief from a bad mood?

Getting help for an Internet addiction:

Any addiction is no laughing matter. It affects not only the addict but also everyone who surrounds them.

Internet addiction may be triggered by underlying emotional disorders such as depression and anxiety, so antidepressants and anti-anxiety drugs can be given in the hope that treating the underlying cause will cause a cessation of the Internet or computer addiction.

Using self-time limits and making self-task priorities by the client can help him in keeping Internet sessions brief. Also make use of techniques that are designed to help clients learn to live more intentionally and responsibility (e.g., role-playing, systematic planning, exploring wants, needs, and perceptions).

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SOFA SCORE
[Continued from Page No. 27]

The SOFA score can be used to determine the level of organ dysfunction and the mortality risk in ICU patients. This information can then be used in a number of ways such as to provide the family with a prognosis, for clinical trials, or for quality assessment.

The SOFA score is not designed to influence medical management. As such, it should not be used dynamically or to determine the success or failure of an intervention in the ICU.

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TATTOOING : THINK BEFORE YOU INK

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Introduction

A tattoo is a form of body modification, made by inserting ink, either indelible or temporary, into the dermis layer of the skin. In modern world this type of body modification (tattoo) has became trend among youth generation. Before making the decision to modify your body, it's important to understand the side effects associated with these procedures. they also damage the skin and can cause complications.

Definition

Tattoo : A tattoo is a form of body art that's created when ink is inserted, using a needle, into the dermis layer of the skin. This changes the skin's pigment and can be used to create almost any image imaginable.

Tattoo Ink : Tattoo ink are available in a range of colors that can be thinned or mixed together to produce other colors and shades. Most professional tattoo artists purchase ink pre-made (known as pre-dispersedinks).

Ink Carrier : The carrier may be a single substance or a mixture. The purpose of the carrier is to keep the pigment evenly distributed in a fluid matrix, to inhibit the growth of pathogens, to prevent clumping of pigment.

Ingredients of Tattoo Inks

Professional tattoo ink pigments may be made from plants, plastics, iron oxides, or metal salts. Homemade inks may be made from dirt, soot, plants, pen ink, blood or an unknown array of other possible ingredients.

Some Known Ingredients of Tattoo Inks:

Heavy Metals

Aluminum, Barium, Cadmium, Chromium, Cobalt, Copper, Iron, Lead, Mercury, Nickel,Titanium, Zinc,Metal oxides(e.g. Ferricyanide)

Organic Chemicals

Azo chemicals, Neptha derivative chemicals, Carbon, Polycyclic compounds

Other Compounds

Antimony, Arsenic, Beryllium, Calcium, Lithium, Phosphorus, Selenium, Silica, Sulfur, Titanium dioxide, Polymethylmethacrylate

Pigment Carriers

Pigments are dissolved in a solvent to help "carry" the color from the needle to the skin. Carriers make ink application easier and help keep the ink mixed with the pigment and evenly distributed. Typical carriers are some form of alcohol or aldehyde. Alcohol-based carriers increase the permeability of the skin, increasing absorption into the bloodstream. which results in more chemicals being absorbed into the bloodstream. Alcohol carriers are also known to amplify the carcinogenic effects of these tattoo inks.

The Tattooing Process

A tattoo is a permanent mark or design made on your skin with pigments inserted through pricks into the skin's top layer. Typically, the tattoo artist uses a handheld machine that acts much like a sewing machine, with one or more needles piercing the skin repeatedly. With every puncture, the needle inserts tiny ink droplets.

The process which is done without anesthetics that causes a small amount of bleeding and slight to potentially significant pain.

Complications

Tattoos breach the skin, which means that skin infections and other side effects are possible, including:

- **Allergic reactions:** Tattoo dyes — especially red, green, yellow and blue dyes — can cause allergic skin reactions, such as an itchy rash at the tattoo site. This can occur even years after you get the tattoo.
- **Skin infections:** A skin infection is possible after tattooing.
- **Other skin problems:** Sometimes bumps called granulomas form around tattoo ink. Tattooing also can lead to keloids — raised areas caused by an overgrowth of scar tissue.
- **Bloodborne diseases:** If the equipment used to create your tattoo is contaminated with infected blood, you can contract various bloodborne diseases — including tetanus, hepatitis B and hepatitis C.
- **MRI complications:** Rarely, tattoos or permanent makeup might cause swelling or burning in the affected areas during magnetic resonance imaging (MRI) exams. In some cases, tattoo pigments can interfere with the quality of the image.
- **Cancer**: Skin cancers have formed within a tattoo and gone unnoticed until they began to extend beyond the boundaries into un-inked areas. These cancers include:
  - Malignant melanoma
  - Squamous cell carcinoma
  - Basal cell carcinoma

Tattoo Removal

Tattoo removal has been performed with various tools during the history of tattooing. While tattoo were once considered permanent, it is now possible to remove them with treatments, fully or partially. Although tattoo removal is possible using laser treatment and other

Continued on page No.35

ICU PSYCHOSIS

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Introduction:-

ICU psychosis has been well known since the 1960's, but only recently has there been a noticeable increase in published literature. ICU Psychosis is often referred to as ICU Syndrome. ICU psychosis is a form of delirium, or acute brain failure. Mental and behavioral changes in ICU patient termed as ICU psychosis, which is precipitated by organic stressors on the CNS.

Definition:-

Eisendrath defined this syndrome as an "acute brain syndrome involving impaired intellectual functioning which occurs in patients who are being treated within a critical care unit."

Incidence:-

One patient in every 3 who spends more than 5 days in an ICU experiences some form of psychotic reaction, according to current estimates.

Etiology And Predisposing Factors:-

Environmental causes	Medical causes
Sensory deprivation	Pain
Sleep disturbance and deprivation	Critical illness
Continuous light levels	Medication reaction or side effect
Stress	Infections creating fever and toxins in body
Lack of orientation	Metabolic imbalances
Medical monitoring	Heart failure, Dehydration
	Cumulative analgesia

Clinical Manifestations:-

- Sudden onset of impairment in cognition
- Disorganized thinking
- Difficulty in concentrating
- Problems with orientation to time, place and person.
- Altered affect, often with emotional liabilty
- Altered perception of external stimuli
- Impairment of memory
- Changes in sleep-wake cycle
- Hallucinations
- Agitation or change in activity levels

Diagnostic Test and Evaluation:-

MEDICAL assessment
Mini mental status examination
Explore the underlying organic cause

Management:-

⇒ Pharmacological Management

- Treat underlying cause.
- Antipsychotic agents such as HALOPERIDOL
- OLANZAPINE and RESPERIDONE
- Benzodiazepines (LORAZEPAM) is the drug of choice.

⇒ Non pharmacological Management

- Continuity of health care personal, clear concise communication
- Repeated verbal reminders of time, place and person
- Clock, calendar, TV, newspaper, radio readily accessible as a means of orientating in time
- Simplify the environment, single room when available, reduce noise levels, remove unnecessary equipment.
- Adjust light according day and light cycle
- Keep familiar objects, flexible visiting hours
- Allow maximum period of uninterrupted sleep and encourage mobilization & activity levels.
- Relaxation techniques like music therapy and massage may also help.

Conclusion:-

A disorder in which patients in an intensive care unit (ICU) or a similar hospital setting may experience anxiety, become paranoid, hear voices, see things that are not there, become severely disoriented in time and place, become very agitated, even violent, etc. ICU psychosis is a form of delirium, or acute brain failure. Organic factors including dehydration, hypoxia, heart failure, infection and drugs can cause or contribute to delirium. The treatment of ICU psychosis depends on the cause. Family members, familiar objects and calm words may help. Dehydration should call for fluids. Heart failure needs treatment with digitalis. Infections must be diagnosed and treated. Sedation with anti- psychotics agents may help. To prevent ICU psychosis, many critical care units now have instituted visiting hours, they try to minimize shift changes in the nursing staff caring for a patient, the lighting is coordinated with the normal day-night cycle, etc. ICU psychosis usually goes away when the patient leaves the ICU.

(Continued in page No. 37)

WATER BIRTH: NEW TREND OF LABOUR

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Introduction:

It is the happiest moment for a woman to be a mother & this happiness may be lost for sometime due to unbearable pain of normal labour process. To prevent this unwanted experience, the new trend of labour mechanism known as Water Birth has come into practice for making labour easy.

Meaning:

Water birth is the process of giving birth in a tub of warm water. It is a birth in which the mother spends the final stages of labour in a birthing pool, with delivery taking place either in or out of the water. The theory behind water birth is that since the baby has already been in the amniotic fluid sac for nine months, birthing in a similar environment is gentler for the baby and less stressful for the mother.

Potential benefits:

Benefits for Mother:

- Warm water is soothing, comforting, relaxing.
- In the later stages of labour, the water has been shown to increase the woman's energy.
- The effect of buoyancy lessens a mother's body weight, allowing free movement and new positioning.
- Buoyancy promotes more efficient uterine contractions and improved blood circulation resulting in better oxygenation of the uterine muscles, less pain for the mother, and more oxygen for the baby.
- Immersion in water often helps lower high blood pressure caused by anxiety.
- The water seems to reduce stress-related hormones, allowing the mother's body to produce endorphins which serve as pain-inhibitors.
- Water causes the perineum to become more elastic and relaxed, reducing the incidence and severity of tearing and the need for an episiotomy and stitches.
- As the labouring woman relaxes physically, she is able to relax mentally with greater ability to focus on the birth process.
- Since the water provides a greater sense of privacy, it can reduce inhibitions, anxiety, and fears.

Benefits for Baby:

- Provides an environment similar to the amniotic sac.
- Eases the stress of birth, thus increasing reassurance and sense of security.

Risks: Infection, Meconium Aspiration, Pneumonia, Drowning and Tearing of the Umbilical Cord

Contraindications:

- If you have Herpes.
- If your baby is breech.
- If you have been diagnosed with excessive bleeding or maternal infection.
- If you are having multiple pregnancy.
- If preterm labour is expected.
- If there is severe meconium.
- If you have toxaemia or preeclampsia.

The best positions:

The warm water will most help you to relax if you can find a comfortable position, with the warm water covering you up to your shoulders.
You could try these positions:

- Squatting, holding onto the sides of the pool.
- Kneeling, leaning forwards onto the side of the pool, or with your arms round your partner's neck.
- Resting on your side with your head on a pillow on the side of the pool.
- Floating on your back with your hands grasping the sides of the pool and your head supported on a pillow or using floats under your arms.
- Floating on your tummy with your head turned sideways, supported on a pillow.
- If your birth partner is in the pool, sitting, with your back against him.

Preparation:

Assessment & evaluation: Nearer term, the usual obstetric assessment will be made to ensure there are none of the factors which will contraindicate labour in water. At the onset of labour, before entering the pool, a shower is taken and the midwife ensures the rectum is empty. This is done by administering a gentle enema if necessary. Cardio-to-cographic (CTG) monitoring will be done for at least thirty minutes prior to entering the pool, to ensure that the baby is fine.

Kind of water used: Ordinary tap water is used. Some practitioners advocate salinizing the water, for example by adding sea-water. This is claimed to make the tissues of the birth canal even suppler.

The ideal temperature of water: The ideal temperature of water used for water birth is ranging from **34 to 37 degrees Celsius**.

Time to get into the pool: If you're having a **home birth**, you can get in the pool whenever you want. Warm water will soothe your back, and help you to relax. It will also help you to store up energy for the hours ahead. If your contractions slow down and get less intense, you could get out of the pool for a while. If you are **using a pool in hospital**, you may find you'll only be allowed in the water when your cervix is at least 5cm dilated. By this time your contractions are usually pretty strong, as you're in active labour. If you want to use the pool right from the start of your labour, the water may need to be changed later. Unless a filtration system is fitted, the pool should be emptied, disinfected and refilled after 24 hours.

The lighting in the room: Dim lighting creates a relaxing, home-like environment. With the lights low, you can retreat into your own world and focus on your labour and the birth of your baby.

Birth partner in the pool: In most cases your midwife will not get into the pool with you. You may want your birth partner to join you in the pool. Even if your birth partner does not get into the pool, just having a special person close by to support you will be greatly reassuring.

Most common reasons for women labouring in water leaving the pool

- Prolonged labour
- Maternal distress (mostly because of pain)
- Maternal request
- Fetal distress

Baby Breathe at the moment of birth:

Once your baby's head has been born, keep your bottom and his head under water so his breathing reflex doesn't start too soon. Your midwife will lift him gently to the surface of the pool, head first, and hand over him to you. Or your midwife can guide you to lift him slowly yourself, being careful not to pull the umbilical cord. Keep your baby's head above the water, and his body submerged so that he stays warm. You can put him to your breast straight away if you want.

Role of midwife in labour:

- Help you get in and out of the pool safely.
- Check the temperature of the water.
- Check your temperature, pulse and blood pressure.
- Check how often your contractions are coming. If they slow, she may suggest a different position or getting up and out of the pool for a bit.
- Make sure you empty your bladder.
- Monitor your baby's heartbeat.
- Offer to check how far dilated your cervix is.
- And most importantly, reassure, encourage and support you.

The hospitals in India for water birth:

The hospitals which provide the facilities for water birth in India are located in Mumbai, New Delhi, Gurgaon, Ahmedabad and Goa.

Conclusion:

Water birth is the advanced method of labour. It provides the same environment to the baby & makes the labour easy. It is beneficial to mother as well as baby with less risk. For making the water birth successful, the midwife & birth partner role is important as it requires advanced preparation.

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https://www.webmd.com
https://americanpregnancy.org

Continued from page No. 32

methods, it is time-consuming, expensive, and may not rid you of the tattoo completely

Laser Method : It refers to the non-invasive removal of tattoo pigments using Q-switched lasers. Typically, black and other darker-colored inks can be removed completely.

Dermabrasion : It is abrading of the skin by using a high speed brush the skin is in essence sanded down to reach and remove the ink stained skin.
Cryosurgery: It freeze the particular area (tattooed area) by using liquid nitrogen which **Trichloroacetic acid** : It removes the top layers of skin.
Salabrasion : Scrubbing the skin with salt causes a peeling of top layer of skin(dermal layer) than deeper.

Conclusion:

In modern world this type of body modification (tattoo) has become trend among youth generation. A tattooing is the process of inserting ink in to the skin which causes the skin problems as well as major health related problems .Nowadays tattoo removal treatments are available but it is expensive and may not rid your tattoo completely.

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NOSOCOMIAL INFECTION: THE UNKNOWN KILLER

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Introduction:
The term "nosocomial" comes from two Greek words: "*nosus*" meaning "disease" and "*komeion*" meaning "to take care of." Hence, "nosocomial" should apply to any disease contracted by a patient while under medical care. However, common usage of the term "nosocomial" is now synonymous with hospital-acquired infection.

Nosocomial infections are infections that have been caught in a hospital and are potentially caused by organisms that are resistant to antibiotics. A nosocomial infection is specifically one that was not present or incubating prior to the patient's being admitted to the hospital, but occurring within 72 hours after admittance to the hospital or sometime after discharge from the hospital the prevalence rate is 25-40% in India.

The agents that are usually involved in hospital-acquired infections include Streptococcus enterococci, Pseudomonas aeruginosa, coagulase-negative staphylococci, Staphylococcus aureus, Bacillus cereus, Legionella and Enterobacteriaceae family members, namely, Proteus mirablis, Klebsiella pneumonia, Escherichia coli, Serratia marcescens. Also multi-drug-resistant nosocomial organisms include methicillin-resistant Staphylococcus aureus, vancomycin-resistant enterococci, Pseudomonas aeruginosa and Klebsiella pneumonia, whereas Clostridium difficile shows natural resistance. Excessive and improper use of broad-spectrum antibiotics, especially in healthcare settings, is elevating nosocomial infections, which not only becomes a big health production loss in the community.

What Causes Nosocomial Infections?
- It is usually due to failure to observe aseptic precautions while carrying out the hospital procedures such as surgeries, intra venous fluid infusions, catheterizations, wound dressing, lumbar puncture, giving injections etc.
- The hospital environment is heavily having the variety of pathogens. These may be present in air, dust, instruments, antiseptic lotions, water, and food shedding from the patient's bystanders.
- Overcrowding of the hospital
- Poor environmental sanitation of the hospital
- Blood and blood products used for transfusion and also IV fluids, if not properly screened can transmit many infections.
- Decreased resistance capacity of the patient with tuberculosis, D.M, Leprosy, cardiac patients, anemia, old age people who have undergone major surgery.
- Urinary and respiratory tract infections by use of infected instruments such as bedpan, catheter, cystoscopy etc.

Main routes of transmission HAI
- Contact spread: It is the principal route of transmission of HAI. It may be by direct contact spread from person to person or by indirect spread via contaminated hands or equipment.
- Air borne spread: This is by inhalation of droplets, dust from bedding, floor, exudate from wound dressing, also causes great economic and production loss in the healthcare sector of every country. by respiratory infections such as tuberculosis, pneumonia, staphylococcal sepsis ,pathogens like Legionella from nebulizer humidifier and ventilators are transmit to the respiratory tract.
- Oral Route: Gastro-intestinal pathogens may be transmitted by food served to the patients. Hospital food may also be a source of antibiotic-resistant bacteria like pseudomonas aeruginosa, E-coli etc.
- Parenteral Route: These routes of infections are spread by the use of contaminated needles, syringes and some infections spread through blood and blood products transfusions and from accidental prick of contaminated sharp instruments (HIV, Hepatitis B & C)
- Auto infection / Self infection: These may occur due to transfer in to wounds of staphylococci and streptococci carried by patients in their nose, throat and skin

Who is at Risk for Nosocomial Infections?
Any patient may obtain a nosocomial infection. Patients in intensive care units have a higher risk of developing an infection. According to the 1995 European Prevalence of Infection in Intensive Care Study, up to 20.6 percent of ICU patients acquire nosocomial infections during or after their stay. On average, nosocomial patients stay in the hospital 2.5 times longer than patients without infection. Patients with highly compromised immune systems are easily infected. This is because their bodies are not able to control the infections on their own.

What Are the Symptoms of Nosocomial Infections?
Symptoms of nosocomial infections vary by type. Patients may experience pain and irritation at the infection site, and many experience visible symptoms.
In addition to the presence of systemic signs and symptoms of infection (eg, fever, tachycardia, tachypnea, skin rash, general malaise).

How is Nosocomial Infections Diagnosed?
Many forms of nosocomial infections can be diagnosed through sight alone. Pus, inflammation, and rashes may all be indications of infection. Blood and urine culture tests can identify the infection.

How is Nosocomial Infections Treated?
Treatments for nosocomial infections depend on the infection type. If the infection occurs at the site of a catheter or other inserted line, the line should be removed immediately.
Antibiotics can combat symptoms of many infections. A healthy diet, fluid intake, and rest can encourage natural healing processes and prevent dehydration.

Preventing Nosocomial Infections
An estimated 40 percent of nosocomial infections are caused by poor hand hygiene (WHO). Hospital staff can significantly reduce the number of cases with regular hand washing. They should also wear protective garments and gloves when working with patients.
Invasive procedures increase the risk of nosocomial infections. Noninvasive procedures are recommended when possible. Hospitals are encouraged to put patients with C. difficile, MRSA, VRE, and resistant Gram-negative infections into isolation rooms. This can lower the risk of other patients becoming infected.

Golden protocols to prevent and control nosocomial infection.
- The provision of sterile instruments dressing, PPE (personal protective equipment)
- Follow the proper techniques of hand washing
- Control the visitors in the hospital.
- Changing of urinary catheter tubing and urinary bag at least in every 72 hours in long term hospitalized patients.
- Rational antibiotic prophylaxis.
- Proper screening tests before the transfusion of blood and blood products.
- Infected patients must be isolated.
- Ensure the cleanliness of water and food supply from the hospital.
- Strictly follow the hospital waste management and staffs must be aware about the color code of the waste bags.
- Control of droplet infections by use of masks, proper bed spacing, and adequate ventilation.

Role of HICT in the nosocomial infection
The Infection Prevention and Control Team is made up of the Director of Infection Prevention and Control (DIPC), Consultant Microbiologists, Infection Prevention and Control Nurses, an IV Nurse Specialist, a Surveillance Co-coordinator, Infection Prevention Assistants, Antibiotic Pharmacists and Admin Assistants.

The role of the Infection Prevention and Control Team is to ensure that the risk of infection to patients, visitors and staff is minimized through a range of prevention and control processes. The team closely monitors infection rates and undertakes audits to maintain consistently high standards across all sites

Functions of HICT
- To formulate policies regarding admission of infectious cases.
- Ensure the isolation facilities for infected patients.
- To conduct training programmes for staff to educate the basic concepts of infection control.
- Guidelines for nursing care, identification of manifestations and proper management.
- Close monitoring of hygiene practices.
- Ensure the proper sterilization and disinfection of articles.
- To evaluate the outcome in every week

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HOSPICE CARE: QUALITY OF LIFE AT THE END OF LIFE

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"You matter because of who you are. You matter to the last moment of your life, and we will do all we can , not only to help you die peacefully, but also to live until you die."

--Dame Cicely Saunders

Introduction:
Hospice is a philosophy of care. The hospice philosophy or viewpoint accepts death as the final stage of life. The goal of hospice is to help patients live their last days as alert and pain-free as possible. Hospice care tries to manage symptoms so that a person's last days may be spent with dignity and quality, surrounded by their loved ones. Hospice affirms life and neither hastens nor postpones death. Hospice care treats the person rather than the disease; it focuses on quality rather than length of life. Hospice care is family-centered -- it includes the patient and the family in making decisions.

This care is planned to cover 24 hours a day, 7 days a week. Hospice care can be given in the patient's home, a hospital, nursing home, or private hospice facility. Most hospice care is given in the home, with family members or friends serving as the main hands-on caregivers. Because of this, a patient getting home hospice care must have a caregiver in the home with them 24 hours a day.

Hospice care services

Many features of hospice care set it apart from other types of health care.

A team of professionals
In most cases, an interdisciplinary health care team manages hospice care. This means that many interacting disciplines work together. Doctors, nurses, social workers, counselors, home health aides, clergy, therapists, and trained volunteers care for you and your family. Each of these people offers support based on their special areas of expertise. Together, they give you and your loved ones complete palliative care aimed at relieving symptoms and giving social, emotional, and spiritual support.

Pain and symptom control
The goal of pain and symptom control is to help you be comfortable while allowing you to stay in control of and enjoy your life. This means that discomfort, pain, and side effects are managed to make sure that you are as free of pain and symptoms as possible.

Spiritual care
Since people differ in their spiritual needs and religious beliefs, spiritual care is set up to meet your specific needs. It may include helping with a certain religious ceremony or ritual.

Home care and inpatient care
Although hospice care can be centered in your home, you may need to be admitted to a hospital, extended-care facility, or a hospice inpatient facility. The hospice can arrange for inpatient care and will stay involved in your care and with your family.

Trained Volunteer Support
Caring volunteers have long been the backbone of hospice. They're available to listen, offer you and your family compassionate support, and assist with everyday tasks such as shopping, babysitting, and carpooling.

Physical, Occupational, and Speech Therapies.
These hospice specialists can help you develop new ways to perform tasks that may have become difficult due to illness, such as walking, dressing, or feeding yourself.

Respite care
Respite care gives your family a break from the intensity of care giving. Your brief inpatient stay in a hospice facility provides a "breather" for caregivers.

Family conferences
Regularly scheduled family conferences, often led by the hospice nurse or social worker, keep family members informed about your condition and what to expect. Family conferences also give you all a chance to share feelings, talk about what to expect and what is needed, and learn about death and the process of dying. Family members can find great support and stress relief through family conferences.

Bereavement care
Bereavement is the time of mourning after a loss. The hospice care team works with surviving loved ones to help them through the grieving process. A trained volunteer, clergy member, or professional counselor provides support to survivors through visits, phone calls, and/or letter contact, as well as through support groups.

Hospice care settings:
Hospice care is defined not only by the services and care provided, but also by the setting in which these services are delivered. Hospice care may be provided in your home or in a special facility.

Most cancer patients choose to get hospice care at home. In fact, more than 90% of the hospice services provided in this country are based in patients' homes.

Home hospice care
Many, if not all, of the home health agencies in your community, as well as independently owned hospice programs, will offer home hospice services. Although a nurse, doctor, and other professionals staff the home hospice program, the primary caregiver is the key team member. The primary caregiver is usually a family member or friend who is responsible for around-the-clock supervision of the patient. This person is with the patient most of the time and is trained by the nurse to provide much of the hands-on care.

Hospital-based hospices
Hospitals that treat seriously ill patients often have a hospice program. It allows patients and their families easy access to support services and health care professionals. Some hospitals have a special hospice unit, while others use a hospice team of caregivers who visit patients with advanced disease.

Long-term care facility-based hospices
Many nursing homes and other long-term care facilities have small hospice units. May have a specially trained nursing staff to care for hospice patients, or they may make arrangements with home health agencies or independent community-based hospices to provide care.

Independently owned hospices
Many communities have free-standing, independently owned hospices that feature inpatient care buildings as well as home care hospice services.

Who care for Hospice care?
Home hospice care usually costs less than care in hospitals, nursing homes, or other institutional settings. This is because less high-cost technology is used and family and friends provide most of the care at home.
Medicare, Medicaid in most states, the Department of Veterans Affairs, most private insurance plans, HMOs, and other managed care organizations pay for hospice care. Also, community contributions, memorial donations, and foundation gifts allow many hospices to give free services to patients who can't afford payment. Some programs charge patients according to their ability to pay.

Medicare hospice
To get payment from Medicare, the agency must be approved by Medicare to provide hospice services.

To qualify for the Medicare hospice benefit, a doctor and the hospice medical director (also a doctor) must certify that the patient has less than 6 months to live if the disease runs its normal course. The doctor must recertify the patient at the beginning of each benefit period (2 periods of 90 days each, then an unlimited number of 60-day periods). The patient signs a statement that says he or she understands the nature of the illness and of hospice care, and that he or she wants to be admitted to hospice. By signing the statement, the patient declines Medicare Part A and instead chooses the Medicare hospice benefit for all care related to his or her cancer. The patient can still receive Medicare benefits for other illnesses. A family member may sign the statement if the patient is unable to do so.

Medicaid coverage
In 1986, laws were passed to allow the states to develop coverage for hospice programs. Most states have a Medicaid hospice benefit, which is patterned after the Medicare hospice benefit.

Private insurance
Most private insurance companies include hospice care as a benefit. Be sure to ask about your insurance coverage, not only for hospice, but also for home care.

Private pay
If insurance coverage is not available or is not enough to cover all costs, the patient and the family can hire hospice providers and pay for services out of pocket. Some hospices provide services without charge if a patient has limited or no financial resources.

Sources of hospice care:

Local resources
Your doctor or hospital discharge planner can help you find hospices in your area. Hospice care providers also are listed in the phone book.

State resources
You may contact your state's hospice organization or its department of health or social services to get a list of licensed agencies. The state health department oversees certification of hospice services. Certification makes them able to get funding from Medicare and, in some states, also from Medicaid. Check the blue pages of your phone book for other resources in your area.

National resources

National organizations that deal with hospice care accreditation, treatment, and patient advocacy

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THE EFFECT OF JUNK FOOD ON HUMAN BODY

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Introduction:

Junk food is a projective terms for cheap food containing high level of calories from sugar or fat with little fibre protein vitamins or minerals. Despite being labelled as "JUNK" such food usually do not pose any immediate health concerns & are generally safe when integrated into a well-balanced diet. However when Junk food is consumed very often, the excess fat, carbohydrates and processed sugar found in junk food contributes to an increased risk of obesity, cardiovascular disease, diabetes weight gain & many other chronic health conditions.

Definition:

Junk food & fast food those commercial product including candy, bakery goods, ice-cream, salty snacks, & soft drinks which have little or no nutritional value but do have plenty of calories, salt & fats, while not all fast foods are ready to eat foods served promptly after ordering same fast foods are high in calories & low in nutritional value while other fast foods such as salads may be low in calories & high in nutritional value.

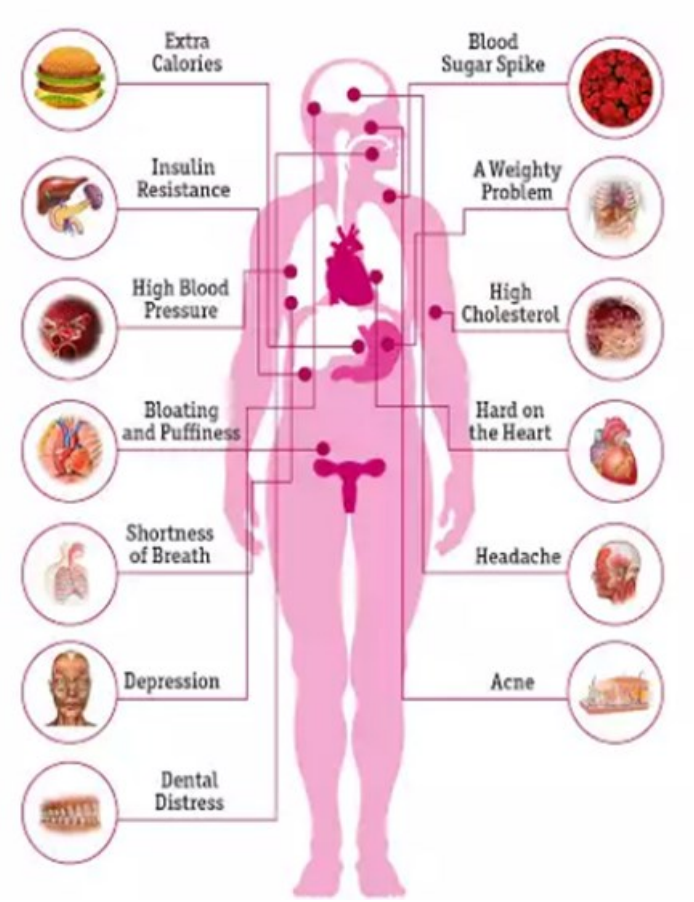
Incidence:

Director Rajesh Pillai had passed away on 27th Feb 2016. He died due to severe liver disease that he was suffering for years. He was never used alcohol & he was not a cigarette smoker as well. But it was Pepsi that lead him to this disease and eventually to death. He only eat junk food & drink almost 30 can of Pepsi per day.

Bhumi contractor was just 14 when she succumbed to lead poisoning last month 30th August 2016. "Seven month ago, she found it hard to walk & one day the left portion of her body was paralyzed," Her nervous system had been damaged by lead poisoning. She had started consuming instant noodles when she was nine years old. She used to eat thrice a day. All instant noodles have lead content which is used as a preservative. So her father suspected that is the reason why she had lead poisoning.

The Effect of junk Food On the Body:

Food is fuel for your body. It has a direct impact on how you feel as well as on your overall health. Fast food isn't necessarily bad, but in many cases it is highly processed and contains large amounts of carbohydrates, added sugar, unhealthy fats and salt. Fast food frequently replaces nutritious foods in your diet, it can lead to poor nutrition, poor health and weight gain. Being overweight is a risk factor for a variety of chronic health problems including heart disease, diabetes & stroke.



A 2013 study published in JAMA Paediatrics showed that children & adolescents take in more calories in fast food and other restaurants than at home. Eating at a restaurant added between 160 and 310 calories a day.

Digestive and Cardiovascular systems:

Many fast foods and drinks are loaded with carbohydrates and, consequently a lot of calories. Your digestive system breaks carbs down into sugar (Glucose), which it then releases into your bloodstream. Your pancreas responds by releasing insulin, which is needed to transport sugar to cell throughout your body. As the sugar is absorbed your blood sugar level drop. When blood sugar gets low, your pancreas releases another hormone called glucagon. Glucagon tells the liver to start making use of stored sugars.

When everything is working in sync. Blood sugar levels stay within a normal range. When you take in high amount of carbs it causes a spike in your blood sugar. That can alter the normal insulin response. Frequent spikes in blood sugar may be contributing factor in insulin resistance and type 2 diabetes.

Added sugar have no nutrition value nut are high in calories. All those extra calories add up to extra weight, which is a contributing heart disease. Often found in fast food Tran's fats are known to raise LDL cholesterol levels. Tran's fats may also increase your risk of developing type 2 diabetes.

Too much sodium causes your body to retain water, making you feel bloated and puffy. Sodium also can contribute to existing high blood pressure. Excess sodium may also increase your risk for kidney stones, kidney disease, and stomach cancer.

Respiratory system:

Fast food increase risk of obesity and obesity may increase respiratory problems, sleep apnea, and asthma. A recent study journal Thorax suggests that children who eat fast food at least three times a week are increased risk of asthma and rhinitis.

Central Nervous system:

A study published in that journal public health nutrition showed that eating commercial baked goods and fast food may be linked to depression. A junk food diet could also affect your brain's synapses and the molecules related to memory and learning.

Skin and Bones:

Chocolate and greasy foods are often blamed for acne, According to the Mayo clinic, because foods that are high in carbohydrates increase blood sugar levels, they may also trigger acne. The study showed a higher risk of eczema among children with a diet high in fast food. When you consume foods high in carbs and sugar bacteria residing in your mouth produce acids. These acids can destroy tooth enamel, a contributing factor in dental cavities. Excess sodium may also increase your risk of developing osteoporosis.

Five main Harmful effect of Junk food:

- It can cause memory and learning problems.
- Increases the risk of dementia.
- Lessens its ability to control appetite.
- It can cause chemical changes that can lead to depression.
- It makes you impatient and can cause uncontrollable cravings

Anti-Junk food measures:

- Developing food and nutrition guidelines for healthy diets.
- Regulating marketing and advertising of junk food.
- Adopting consumer- friendly labelling of food products.
- Establishing accountability mechanisms for violation of the right to health.
- Taxation is good for to reduce junk food consumption through price control.

Points to be kept in mind while having diet.

Junk food is a slang word for foods with limited nutritional value. Every person has their own list of foods that they call junk foods. I would include foods that are high in salt, sugar, fat or calories and low nutrient content.

Salted snack foods, candy, gum, most sweet desserts, fried fast food and carbonated beverages are some of the major junk foods. Generally, they offer little in terms of protein, vitamins or minerals and lots of calories from sugar or fat. The term "empty calories" reflects the lack of nutrients.

Rather than taking a radical approach and banning all but the simplest foods, judge each food based on the list of ingredients and Nutrition Facts label found on packages. When reading the list of ingredients, look for sugar, fat or salt as one of the first three ingredients. If any of these are listed that high in the ingredients, you can probably consider that food to be too high in sugar, fat or salt.

A look at the nutritional information on the label will list the number of calories per serving, grams of fat, sodium, cholesterol, fiber and sugar content. This nutritional information will make you more knowledgeable in selecting foods to reduce your nutritional health risk.

Calorie content of 300 calories per serving or less is considered to be all right, except whole meals unless you are following a weight loss diet. Be cautious though as to how large a serving size is. If 4 ounces of yogurt is a serving size and you eat an eight-ounce container, you have doubled the calorie content. Sometimes, the package serving size is not how little you serve yourself!

Sodium content per serving should be 2300 milligrams or less per day. Some foods, like ham and other cured meats do have very high sodium content per serving. Limit these foods rather than eliminate them. Cholesterol content should be 300 milligrams or less per day. It is easy to remember that 300 is the same as the number of calories per serving. Fiber content will be listed in grams of dietary fiber. This amount will vary from product to product, but don't necessarily shop for only the highest numbers you can find. Any amount of dietary fiber above two grams per serving is good. Foods with five grams of fiber or more are considered high fiber foods.

If you want to cut down on junk food, cut down your intake of salt, sugar, fat and refined foods. Choose your calories by the nutrient company they keep.

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STRESS AND COPING STRATEGIES AMONG MOTHERS OF CHILDREN WITH INTELLECTUAL DISABILITY

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ABSTRACT

Background: Parents having a mentally retarded child experience a variety of 'psychological stress related to the child's disability. ***Objectives:*** (1) to assess the stress among the mothers of children with intellectual disabilities,(2) to assess the coping strategies among the mothers of children with intellectual disabilities, and (3) to find out the co-relation between stress and coping strategies among mothers of children with intellectual disabilities. ***Method:*** Modified FISC-MR Section 2 scale for Stress and Coping in Mental Retardation was used to assess stress and coping strategies of 100 mothers of children with intellectual disability. Non-probability purposive sampling technique was employed for selection sample. Five point Likert's scale was used to get response from the mothers in each section of the tool. Descriptive and inferential statistics was used to compute findings. ***Result:*** the level of stress among mothers reveals that 61(61%) had moderate stress, 35(35%) had mild stress and 4(04%) had severe stress level. 90(90%) of them had moderate coping strategies and 10(10%) of them had poor coping strategies. There is a significant correlation (r=0.20) between the stress and coping strategies of mothers at $p<0.05$ level. ***Conclusion:*** Thus the overall findings of the study depicts that mothers had moderate to severe stress and adapted poor coping strategies.

Keywords: Stress, Coping Strategies, Intellectual Disability, Mothers and Children.

Introduction:

Parenting a mentally retarded child is not an easy task (Ganguli R and Peshawaria R). Parents having a mentally retarded child experience a variety of 'psychological stress related to the child's disability. Parents especially mothers need every help and encouragement possible in their difficult task, which is, indeed, easier for them while the child is still a baby. An anxious love, on the part of the mother, may do much to exacerbate the defective's disability (Boswell).

Parenting is the single largest variable implicated in childhood illnesses and accidents. Having a child with a chronic disability is stressful for any family. Living with a disabled child can have profound effects on the entire family, which in turn can affect the health and well-being of the child who is disabled.

In the world 600 million people are physically challenged, among which one quarter or 150 million are children. It is estimated that 6 to 10% of children in India are born disabled. Among them thirty percent are children below the age of fourteen years. Of these, 48 percent are visually impaired, 28 percent are movement impaired, 14 percent are mentally disabled and 10 percent have hearing and speech disabilities (UNICEF).

There is abundant evidence that parents of retarded children undergo more than the average amount of psychological stress. There is no universal parental reaction to the added psychological stress of raising a retarded child. A number of factors can influence reaction and adjustment, including the severity of the retardation. Family adaptation is also influenced by the parent's prior psychological makeup, availability and quality of professional services, marital interaction, religious beliefs, attitudes, family size and structure. The amount of support the parents receive from friends, relatives and professionals, self determination and intellectual functioning of the parents (Featherstone, 1986).

Research has indicated that families, who are successful in coping with having a mentally retarded child, are able to mobilize their internal and external means of support to deal effectively with the special needs of their child. Resources that act as facilitators to effective coping can be of two types: internal coping strategies (i.e., coping through passive appraisal, reforming, spiritual and religious support) and external coping strategies (i.e., coping through use of social support or formal support). Parents know their children best and the best for their children (King, 2002).

Regular and active participation by mothers during all phases of care of children with intellectual disabilities plays a vital role in their children's quality of life. However, providing a high level of care that is required by a child with intellectual disabilities may affect the psychological health of the mothers. So it is clear that the presence of child with intellectual disabilities in the family causes tremendous stress particularly to the mothers. The purpose of this study was to identify the stress among mothers in taking care of children with intellectual disabilities and to identify the coping strategies adopted by them. This will contribute in improving services such as counseling and educational interventions to such mother.

Objectives of the study:

1. To assess the stress among the mothers of children with intellectual disabilities.
2. To assess the coping strategies among the mothers of children with intellectual disabilities.

3. To find out the co-relation between stress and coping strategies among mothers of children with intellectual disabilities.

Methodology:

Sample: Quantitative approach, Non experimental descriptive design was used to describe the stress and coping strategies among mothers of children with intellectual disabilities. The study population was mothers of children with intellectual disabilities and accessable population was mothers who visited selected child guidance clinics in Rishikesh. A total of 100 mothers of children with intellectual disability were selected by employing non probability purposive sampling technique. **Assessment Tools:** A structured socio demographic sheet was prepared to elicit information about the mothers which included (i) specific variables of the child such as age, sex and severity of intellectual disability. (ii) Socio demographic variables such as mothers age, education, occupation, family income and type of family. Mothers were administered the modified FISC-MR Section 2 scale for Stress and Coping in Mental Retardation, developed at NIMHANS Bangalore. The tool consists of 2 sections: 1. Measuring Stress (Daily care, emotional stress, social stress and financial stress) and 2. Measuring mediators of stress or coping strategies (awareness, attitudes& expectations, child rearing practices, social support and global adaptation). **Procedure:** Permission from respective authority was taken for collection of data. Informed consent was taken from the mothers and three point Likert scale was used to get response from the mothers regarding stress and coping strategies. Descriptive and inferential statistics was used to compute findings.

Results:

The overall level of stress experienced by mothers reveals that among hundred mothers 35(35%) of them had mild stress level and 61(61%) of them had moderate stress levels whereas 4(04%) of them had severe stress level and no one had normal stress. The overall coping strategies reveals that among hundred mothers, 90 (90%) of them had moderate coping strategies and 10 (10%) of them had poor coping strategies and none of them had well coping strategies. These statistical data shows that as the mothers stress is in between mild and moderate level they have moderate coping strategies and they adjust to their stressful events.

The mean value of respondents on level of stress is 39.51 with standard deviation of 6.46 where as the mean value of respondents on coping strategies 27.47 with standard deviation of 4.92. The correlation coefficient value shows that there is a positive correlation (r = 0.20) between level of stress and coping strategies of mothers. Considering the stress level most of them have mild to moderate stress and majority of them 90(90%) have a moderate coping. The analysis revealed that there is a statistical significant association between the stress levels of mothers. The chi-square value shows significant association between the level of stress among mothers with monthly family income 27.59 ($p<0.01$), and significant association between the coping strategies of mothers with health education 7.71 ($p<0.05$). As the monthly income is high the stress level of mothers gets decreases. This may be due to the life style pattern and the affordability to keep a helper for household activities. Hence there is a reduction in stress.

Discussion:

The conclusions related to the major findings are as follows; the level of stress among mothers reveals that 61 (61%) of them had moderate stress levels, 35(35%) of them had mild stress levels whereas 4(04%) of them had severe stress level and no one had normal stress. 90(90%) of them had moderate coping strategies and 10(10%) of them had poor coping strategies and none of them had well coping strategies. There is a significant correlation (positive correlation, $r=0.20$) between the stress and coping strategies of mothers at $p<0.05$ level. There is a significant association between the level of stress among mothers with monthly family income 27.59 ($p<0.01$), and significant association between the coping strategies of mothers with health education 7.71 ($p<0.05$).

Conclusion:

Thus the overall findings of the study depicts that mothers had moderate to severe stress and adapted poor coping strategies. So it clear that all mothers of children having intellectual disability should be given adequate counseling and psychological support in order to cope with the disability more effectively.

Suggestions:

Parental training by government, non-government organizations, educational or research services and better parents caregivers relationship are essential in bringing about a positive change in the condition of children with intellectual disabilities and their families. Intervention programmes should be developed for the parents to enhance coping strategies.

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Knowledge and Attitude Primary School Teachers Towards Prevention of Vector Born Diseases Among Children

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ABSTRACT

A Study was conducted on knowledge and attitude regarding Prevention and Control of Vector Borne Diseases among the Primary School Teachers of selected Primary Schools of Gujarat State. The objectives of the study were to assess the knowledge and attitude regarding Prevention and Control of Vector Borne Diseases among the Primary School Teachers before and after administration of planned teaching programme and also to find correlation between post-test knowledge and post-test attitude score. Quasi experimental research approach was used with one group pre test and post test design. The investigator used simple random sampling technique for selecting the 40 samples. A planned teaching programme on prevention and control of vector borne diseases was prepared for the samples. A structured knowledge questionnaire and likert's attitude scale were prepared to assess the knowledge and the attitude of the samples. Descriptive and inferential statistics were used to analyze the data. The mean pre test knowledge score was 22.35 and the mean post test knowledge score was 37.4. The mean pre test attitude score was 89.6 and the mean post test attitude score was 118.7. Significance of the difference between pre test and post test knowledge and attitude was statistically tested using paired 't' test and it was found significant at 0.05 level. Also there is significant positive correlation between the post—test knowledge and attitude score(r=0.32). There was increase in the knowledge and change in attitude of Primary School Teachers after the administration of the Planned Teaching Programme on Prevention and Control of Vector Borne Diseases. Hence it was concluded that Planned Teaching Programme was effective in improving the knowledge and attitude of Primary School Teachers of selected Primary Schools of Gujarat State.

Introduction:

More than half the world's population is at risk from diseases such as malaria, dengue, leishmaniasis, lyme disease, schistosomiasis, and yellow fever, carried by mosquitoes, flies, ticks, water snails and other vectors. Every year, more than one billion people are infected and more than one million die from vector-borne diseases. On this World Health Day -7th April, WHO is highlighting the serious and increasing threat of vector-borne diseases with the slogan "Small bite, big threat". (World Health Day 2014: Preventing vector-borne diseases, Geneva)

Now a day the major health problems in India are more in rural as well as urban areas. In rural areas mosquito borne diseases are more due to unhygienic practices. Worldwide malaria is a leading cause of premature mortality, particularly in children under the age of five with around 2 million deaths annually. According to the centres for disease control, during rainy season mosquitoes breeds in stagnant water. Water storage, containers for drinking, washing, bathing, is the primary source of larval accounting for 90% of the total breeding place. Important breeding place of mosquitoes is in slums, and open drainage, waste disposal.

The people living in the hereby area are easily become the victims of vector – borne diseases. Recurrent outbreaks of mosquito borne diseases are malaria, dengue fever, chikungunya and japanese encephalitis. These are major diseases which can be transmitted by mosquitoes. (Gubler DJ, Clark G.G, "The emergency of global health problem emergency infection diseases". CAB International 1995)

The objectives of the study were to assess the knowledge and attitude regarding Prevention and Control of Vector Borne Diseases among the Primary School Teachers before and after administration of planned teaching programme and also to find correlation between post-test knowledge and post-test attitude score.

Statement of The Problem

"A study to assess the effectiveness of Planned Teaching Programme on Knowledge and Attitude regarding Prevention and Control of Vector Borne Diseases among the Primary School Teachers of selected Primary Schools of Gujarat State"

Hypothesis:

H_{01}: There will be no significant difference between pre -test and mean pre-test knowledge score of the samples after administration of planned teaching programme on prevention and control of vector borne diseases as evident from the structure knowledge questionnaire at 0.05 level.

H_{02}: There will be no significant difference between pre -test and mean pre-test attitude score of the samples after administration of planned teaching programme on prevention and control of vector borne diseases as evident from the five point Likert's Rating scale at 0.05 level.

H_{03}: There will be no correlation between post-test knowledge score and attitude score of prevention and control of vector borne diseases among primary school teachers.

Methodology

Quasi experimental research approach used with one group pre test and post test design. The study was conducted in the selected primary schools of Gujarat State. The investigator used simple random sampling technique for selecting the 40 samples. A planned teaching programme on prevention and control of vector borne diseases was prepared for the samples. A structured knowledge questionnaire and likert's attitude scale were prepared to assess the knowledge and the attitude of the samples. Content validity of tools and planned teaching programme was done by the experts. Collected data was analyzed by using descriptive and inferential statistics in terms of frequencies, percentage, mean, standard deviation, and 't'test.

Results:

The percentage gain in areas as per area was introduction about vector borne diseases (37%), malaria (19.66%), dengue(38.5%), chikungunya(53.75%), filaria (31.75%), kala-azar(51.75%), japanese encephalitis (23.25%) and vector management(47.42%). So the investigator concluded that there was significance increase in the mean post-test knowledge score as compared to mean pre-test knowledge score in all areas after Planned Teaching Programme on Prevention & Control of Vector Borne Diseases which is statistically proved.

The calculated 't' value is more than the table value. Hence the Planned Teaching Programme was effective and' null hypothesis was rejected and the research hypothesis was accepted.

The percentage gain in areas as per area was accordingly introduction(21.8%), malaria(20.92%), dengue(24.84%), chikungunya(22.34%), filaria(27%), kala-azar(21.7%), Japanese encephalitis(21.7%) and vector management(32.93%). So the investigator concluded that there was significance increase in the mean post-test knowledge score as compared to mean pre-test knowledge score in all areas after planned teaching programme on prevention & control of vector borne diseases which is statistically proved.

The calculated' value is 64.67 at 39 degree of freedom with 0.05 level of significance. The calculated 't' value is more than the table value. Hence the planned teaching programme was effective and null hypothesis was rejected and the research hypothesis was accepted.

Thus the increase mean knowledge score in the post test phase indicates that the planned teaching programme was effective. Thus the investigator concluded that there is significant positive correlation between the knowledge and attitude of the primary school teachers of the selected primary schools of Gujarat State. It significant that if the knowledge of the samples increases then the attitude of samples is also tends to increase. Thus the null hypothesis H_{03} was rejected and the research hypothesis H_3 was accepted.

Conclusion:

The study was conducted to assess the effectiveness of Planned Teaching Programme on Knowledge and Attitude regarding Prevention and Control of Vector Borne Diseases among the Primary School Teachers of selected Primary Schools of Gujarat State.The findings indicated that planned teaching programme was an effective strategy to increase the knowledge and attitude of respondents. Primary School Teachers gained significant increase in knowledge and change in attitude which shows that the planned teaching was effective. The Planned teaching programme on Prevention and Control of Vector Borne Diseases was acceptable and useful method of teaching for primary school teachers.

Recommendations:

The following recommendations are made on the basis of the findings of present study.

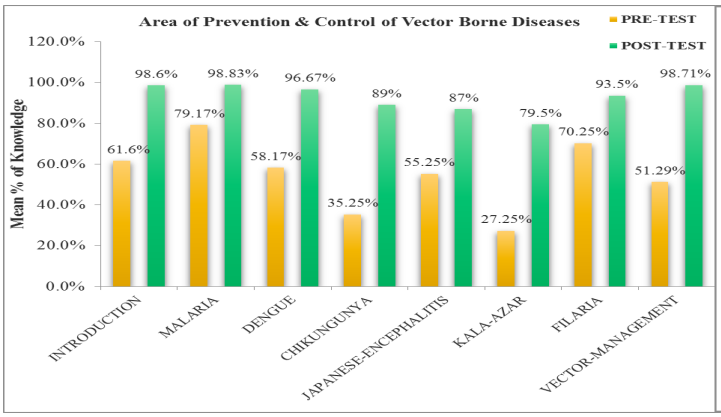
1. A similar study can be replicated in large samples and in all districts of Gujarat State or other State so that findings can be generalized for a large population.
2. A descriptive study can be conducted to assess the knowledge and attitude of people regarding prevention and control of vector borne diseases.
3. A study can be conducted to determine the existing role of nursing personnel regarding education of the community regarding prevention and control of vector borne diseases.
4. A comparative study can be carried out between urban and rural population to identify the difference in terms of knowledge and attitude regarding prevention and control of vector borne diseases.
5. A study can be conducted to assess effectiveness of training regarding prevention and control of vector borne diseases among health staff.

Table – 1

Area wise Mean, Mean Percentage, Percentage Gain, Mean Difference, Standard Deviation (SD) of Pre-Test and Post-Test Knowledge Scores of samples on Prevention & Control of Vector Borne Diseases.

[N=40]

Area	Max. Score	Pre-Test Score			Post-Test Score			Mean % Gain	Mean Difference
		Mean Score	Mean %	S.D	Mean Score	Mean %	S.D		
Introduction	5	3.08	61.6	0.69	4.93	98.6	0.81	37	1.85
Malaria	6	4.75	79.17	1.06	5.93	98.83	0.27	19.66	1.18
Dengue	6	3.49	58.17	0.91	5.74	96.67	0.60	38.5	2.25
Chikungunya	4	1.41	35.25	0.93	3.56	89	0.60	53.75	2.15
Filaria	4	2.21	55.25	0.79	3.48	87	0.55	31.75	1.27
Kala-azar	4	1.11	27.75	0.84	3.18	79.5	0.75	51.75	2.07
JE	4	2.81	70.25	0.65	3.74	93.5	0.52	23.25	0.93
Vector management	7	3.59	51.29	0.84	6.91	98.71	0.27	47.42	3.32
TOTAL	**40**	**22.35**			**37.4**				**15.05**



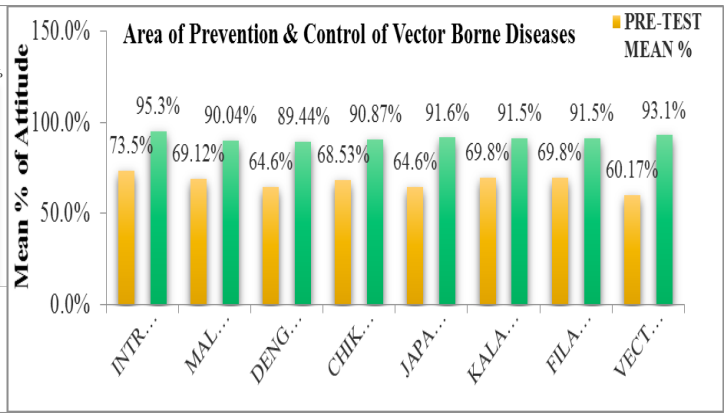


TABLE-2

Mean Score, Mean Difference, SD &'t' Value of pre & post test Attitude Score of samples **(N=40)**

Attitude	Mean	Mean Difference	SD	SE	Calculated 't' test	Tabulated 't' test
pre-test	89.6	29.1	2.49	0.45	64.67	2.03
post – test	118.7		1.36			

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