

Prevalence of “Persistent Low Grade Morbidities” in a Section of Urban Youth Population

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Abstract

Background: To determine the frequency and pattern of persistent low grade morbidities (PLGMs) in youth and also to identify life style factors which may influence their occurrence.

Methods: In this cross-sectional study 200 younger urban people (19-24Y) were inquired by a self designed questionnaire by direct interviewing.

Results: Mean age was 21years. Sixty four percent were female, 69% students, 6.5% smokers and 90.5% were unmarried. Distribution of PLGMs found was depressive mood swings(62%), frequent headache (46.5%), pain in lower limbs (44.5%), neck shoulder & back pain (44%) , easy fatiguability (42.5%), difficulty in falling asleep (38%) and epigastric discomfort (28%). More females (64.04%) were found affected. Statistically important co-variations between healthy behaviours and the absence of selected PLGMs (OR=1.01 - 2.09) was seen.

Conclusions: Study findings are close to presumptions and are enough to sensitize relevant public health stake holders for needed measures. Clinical studies would help to find the ultimate causes of morbid states in focus

Key Words: Low-grade morbidities, Youth, Lifestyle

Introduction

Persistent low grade morbidities (PLGMS) are symptomatic conditions which occur persistently or reoccur frequently (at least once per week), are of such a severity that the sufferers usually do not report to a healthcare provider or even if they report it is symptomatically treated and not considered for thorough management. A healthy youth is more expected to deliver to his potential. It is frequent observation to find youth with complaints like headache, heart burn, pain in neck and shoulders, depressive mode swings etc. Presumptions are that these PLGMs may occur due to unhealthy behaviours

like physical inactivity, inadequate diet and sleep and smoking etc . According to UNFPA, in the year 2014 the world was home to 1.8 billion young people (10-24years) and it is growing fastest in the underdeveloped and developing nations. In Pakistan youth shares more than 32% (58.6M) of the overall population burden.¹ WHO has defined health as “State of complete physical, mental and social well being not merely absence of disease or infirmity, and the ability to lead a socially and economically productive life”.² Larger share of youth in our population is considered an opportunity but its health and wellbeing is explored very little. The NGOs assisting youth have informed that healthy and happy adolescents can better contribute to their communities as young citizens despite the major shifts occurring in the world they are about to inherit. Bad eating habits and poor hygiene, persistent behavioural risks and poor sanitary conditions are contributing to a mixture that is changing the classical picture of healthy youth.³ In an epidemiological research in USA 57.1% males and 76.5% females in age group of 12-29 years were found with a recent episode of headache. Other major morbid conditions reported in youth were substance abuse, sexually transmitted infections and obesity⁴. A survey in Sweden on epidemiology of abdominal symptoms in adults revealed 54.3% of the study subjects with at least one discomforting abdominal symptom.⁵ Another study of western population has reported up to 20% of younger affected by mental disorders each year.⁶ These disease conditions can be due to life style changes, inadequate diet, increased stress and more exposure to drugs.³ The life style change is evident by the research report that during the past 15 years in United Kingdom the average annual distance travelled on bicycle by teenagers has fallen by 31% and the average annual distance walked has fallen by 24% and car travelling during this period has increased by 35%.⁷ The estimated increase in “overweight” in US adult population has been 8% between 1976 to1980 and 33.4% during 1988 to 1991.⁸

It is common observation that youth of present time is facing health problems which were not frequent in the past in same age group. Frequent headache, neck and backache, epigastric discomfort or burning, depressive moods, difficulty in falling to sleep, easy fatigability and other GI symptoms are frequently complained by younger and have been accepted as a part of life. Young people spend equally important time in institutions, at work place or in other social settings. Freedom from ill health even how minor would contribute to their performance and fulfilment of their role in socio-economic development of the nation. As an epidemiological fact if such conditions of ill health and health risk behaviours occur widely they add to premature morbidity and mortality in youth and adults. This raises level of concern amongst the public health professionals.

Subjects and Methods

This cross-sectional comparative study was conducted, in Sialkot, sixth biggest city of Punjab, from June to

August 2015. Study population constituted young adults (n=200) living in urban area. Inclusion criteria was young adults of both sexes 19-24 years of age⁹. Exclusion criteria was persons with established diseases with symptoms similar to PLGMs. A self-designed structured performa was used and the data was collected by direct interviewing by the researchers. Verbal informed consent from the subjects was taken and confidentiality of their personal information was ensured. In addition to the socio-demographic characteristics the study subjects were inquired for already mentioned 08 selected PLGMs / conditions and 08 life style attributes including "taking daily physical exercise , observing meal timings, daily taking milk, eating fast foods, taking soft drinks, taking adequate (6-8hrs single span/24hr)sleep, taking daily bath and smoking. style attributes.

Table 1: Distribution of PLGMs in the study subjects and in relation to their gender category.

Types of Persistent or grade Morbidities	Frequency in total subjects (n=200)	Frequency in male (n=72)	Frequency in Female (n=128)
Depressive mood swings	124 (62.00%)	42 (58.33%)	82 (64.06%)
Frequent Headache	93(46.50%)	29(38.66%)	64 (50.00%)
Pain in lower limbs	89(44.50%)	19(26.38%)	70 (54.68%)
Neck, shoulder & back pain	88(44.00%)	20(27.77%)	68 (53.12%)
Easy fatigue ability	85 (42.50%)	24(33.33%)	61 (47.65%)
Difficulty in falling sleep	76 (38.00%)	23 (31.94%)	53 (41.40%)
Epigastric discomfort*	56(28.00%)	15(20.83%)	41(32.03%)
Frequent constipation	53(26.50%)	13(18.05%)	40(31.15%)

^a pooled for heart burn, fullness fullness/dyspepsia

Table 2: Distribution of selected PLGMs in relation to certain "desired life style attributes" of the study subjects (n=200)

Desired Life style attributes		Distribution of PLGMs											
		Epigastric burning		Constipation		Difficulty in falling sleep		Depressive modes swings		Frequent headache**		Pain neck, shoulders back***	
		No	Present	No	Present	No	Present	No	Present	No	Present	No	Present
Daily Exercise*	Yes	62 (56.9%)	22 (39.4%)	67 (45.6%)	17 (32.1%)	59 (47.6%)	25 (32.9%)	36 (47.4%)	48 (38.7%)	43 (59.8%)	41 (44.1%)	51 (54.1%)	33 (37.1%)
	No	82 (43.1%)	34 (60.7%)	80 (54.4%)	36 (67.9%)	65 (52.4%)	51 (67.1%)	40 (52.6%)	76 (61.3%)	64 (40.2%)	52 (55.9%)	60 (45.9%)	56 (62.9%)
Odds Ratio		1.16		1.77		1.85		1.42		0.85		1.44	
Daily single span 6-8hrs	Yes	109(74.7%)	36 (64.3%)	112(76.2%)	33 (62.3%)	97 (78.2%)	48 (63.2%)	59 (77.6%)	86 (69.4%)	87 (81.7%)	58 (62.4%)	84 (75.7%)	61 (68.5%)
	No	35 (24.3%)	20 (35.7%)	35 (23.8%)	20(37.7%)	27 (21.8%)	28 (36.8%)	17(22.4%)	38 (30.6%)	20 (18.7%)	35 (37.6%)	27 (24.5%)	28 (31.5%)
Odds Ratio		1.73		1.93		2.09		1.53		2.62		1.42	
Take bath daily	Yes	99 (68.8%)	33 (58.9%)	100 (68.0%)	32 (60.4%)	82 (66.1%)	50 (65.88)	57 (75.0%)	75 (60.5%)	70 (65.4%)	62 (66.7%)	77 (69.4%)	55 (61.8%)
	No	45 (31.2%)	23 (44.4%)	47 (32.0%)	21 (39.6%)	42 (33.9%)	26 (34.2%)	19 (25.0%)	49 (39.5%)	37 (34.6%)	31 (33.3%)	34 (30.6%)	34 (38.2%)
Odds Ratio		1.53		1.39		1.01		1.96		0.94		1.40	
Observe meal timings	Yes	97 (67.4%)	35 (62.5%)	99 (67.3%)	33 (62.3%)	89 (71.8%)	43 (56.6%)	53 (30.3%)	79 (63.7%)	76 (71.0%)	56 (60.2%)	71 (64.0%)	61 (68.5%)
	No	47 (32.6%)	21 (37.5%)	48 (32.7%)	20 (37.7%)	35 (28.2%)	33 (43.4%)	25 (69.7%)	45 (6.3%)	31 (29.0%)	37 (39.8%)	40 (36.0%)	28 (31.5%)
Odds Ratio		1.23		1.25		1.95		1.20		1.61		0.81	

Percentages are shown for proportions of life style attributes in subjects with and without PLGM. * physical activity for health and fitness ** more than 1time/week *** subjects with most frequent type of body aches were analyzed.

Table 3: Distribution of selected PLGMs in relation to certain “undesired life style attributes” in the study subjects (n=200)

Undesired Life style attributes	Distribution of PLGMs											
	Epigastric burning		Constipation		Difficulty in falling sleep		Depressive modes swings		Frequent headache*		Body aches & pain	
Fast food* Frequency	Present	No	Present	No	Present	No	Present	No	Present	No	Present	No
2/week**	34 (60.7%)	97 (67.3%)	10 (18.8%)	38 (25.8%)	20 (26.3%)	28 (22.5%)	30 (24.1%)	18 (23.6%)	27 (29.0%)	21 (19.6%)	26 (29.2%)	22 (19.8%)
1/week	22 (39.2%)	47 (32.6%)	43 (81.1%)	109 (74.1%)	56 (73.6%)	96 (77.4%)	94 (75.8%)	58 (76.3%)	66 (70.9%)	86 (80.3%)	63 (70.7%)	89 (80.1%)
Statistical significance	OR = 0.74		OR = 0.66		OR = 1.22		OR = 1.006		OR = 1.67		OR = 1.66	
Cigarette Smoking	Distribution of PLGMs											
Yes	3 (05.4%)	10 (06.9%)	2 (03.8%)	11 (07.5%)	7 (11.5%)	6 (04.8%)	8 (06.5%)	5 (06.6%)	7 (07.5%)	6 (05.6%)	5 (05.6%)	8 (7.2%)
No	53 (94.6%)	134 (93.1%)	51 (96.2%)	136 (92.5%)	69 (88.4%)	118 (95.2%)	116 (93.5%)	71 (33.4%)	86 (92.5%)	101 (94.4%)	84 (94.4%)	103 (92.8%)
Statistical significance	OR = 0.75		OR = 0.48		OR = 1.99		OR = 0.97		OR = 1.37		OR = 0.76	

*Fast food include Burger, pizza, or like ** frequency of ≥3/week is pooled

Table 4: Distribution of life style attributes in the study subjects

Life style attributes	Global (200)			Male (72)			Female (128)		
Take Adequate sleep(6-8hrs/24hrs)	145(72.5%)			53(73.61%)			92(71.87%)		
Take Regular Physical Exercise	84(42.0%)			34(47.22%)			50(39.06%)		
Take bath daily	132(66.0%)			63(87.50%)			69(53.90%)		
Observe meal timings	132(66.0%)			46(63.88%)			86(67.18%)		
Take milk daily	60(30.0%)			21(29.16%)			39(30.46%)		
Cigarette smoking	13(6.5%)			13(18.05%)			00(00.00%)		
Take soft drinks*	159(79.5%)			63(87.50%)			96(75.00%)		
Take fast Food**	200(100%)			72(100%)			128(100%)		
Frequency of fast food as times /week	≥3 /w	≥2/w	≤1/w	≥3 /w	≥2/w	≤1/w	≥3 /w	≥2/w	≤1/w
	48(24.0%)	83(41.5%)	69(34.5%)	16(22.2%)	29(40.2%)	27 (37.5%)	32 (25.0%)	54(42.1%)	42(32.8%)

* Only those who took soft drinks at least more than once a week . ** Burger/ Pizza etc

Results

In this survey a total number of 220 subjects were accessed but 200 were found eligible for the inquiry (n=200). Proportion of females was high (128 / 64%) as compared to males (72 / 36%). The mean age of the respondents was 21years (SD ±1). Most of the subjects (n=138) were students and remaining 62 had other professions. Majority (n=181) subjects were single and most (n=128) were female. Sixty two percent (n=124) of the total subjects reported to had at least one kind of PLG morbid condition with male to female distribution as 1:2. Depressive mode swings was the most frequent ill health found across the gender (Table 1 to 3). Substantial proportion of the subjects (n= 145) were in habit of taking adequate sleep and daily

exercise (n=85) (Table 4). All of the subjects were found eaters of fast food with 131 (64.5%) subjects taking it frequently (≥2 time per week). Only 13 subjects (6.5%) admitted to be smokers while no female subjects were found in habit of smoking.

Discussion

In our study we have tried to point out the low grade morbid conditions prevalent in youth of Pakistan. At the same time we have also tried to highlight certain life style attributes that might be causing such conditions. It was identified that majority (62%) of our youth has at least one kind PLGM. It is enough to realize the suboptimum health status of our youth. The mental health infirmity measured as depressive mode

swings was found most frequent (62%). According to a study in India at least 20 per cent of young people are likely to experience some form of mental illness including depression or mood disturbances and others.¹⁰ while in a prospective research conducted in 2014 revealed that young adults (ages 18 to 29) were more likely to report suffering from symptoms of depression if they lived below the poverty line.¹¹ These morbidities also can lead to other disorders and behavioral problems like substance use, criminal behavior, and other risk-taking behaviors¹². Same is the case with youth in our country. Lack of learning and employment opportunities, lack of career structures, glamorous media prone idealism and dual standards of society may have induced an unsatisfied feelings in younger population. Although adolescence and young adulthood is generally considered the time of life when in health is at its peak, unfortunately it is seen that several health related behaviors and problems either start or peak during these years. This study found smoking prevalent in only 06.5% subjects and nil in female inquired (Ref.Tab.II) which may be an under estimation due to biased and smaller size of sample. According to survey conducted by Population Health Research Group in Karachi in 2008 on average 23% of students (31% male and 6% female) were classified as a current smoker¹³ while in a recent media report 40% of our male & 09% of female are smokers.¹⁴

Other PLGMs including frequent headache, body pains, difficulty in falling sleep and GIT problems were reported by substantial subjects and might be influencing their normal roles in life. According to a research conducted in 2011-12 by Isfahan University of Medical Sciences Najafabad Branch, Functional Gastrointestinal disorders (FGID) are common disorders in young adults¹⁵. It was observed in this study that a large proportion of our youth is in habit of consuming fast food (65.5%) and (79.5%) fizzy drinks. GIT related PLGMs were present more in females who are found frequent user of fast food (67.1%), soft drinks (75.0%) & and physically inactive (41.9%). It endorses results of study reported from United States in 2012 that one in four 18 to 34 years adults reported consuming regular soft drinks and its reduction was associated with decreased risk of chronic illnesses.¹⁶

Mass media advertisement has played role in transferring such risk behaviours among youth as is evident in a study from Chennai, India that 82% of adolescents buy food products and snacks based on media pull while 59% skipped outdoor activities for watching TV.¹⁷

Higher rate of easy fatigability (42.5%) may indicate role of dietary deficiencies. It was high in female (47.6%) than male (33.3%). A study conducted in Karachi has verified deficiencies of vitamins and mineral in adult population.¹⁷ Other conditions like headache, neck & shoulder pain, pain in legs, GI symptoms are present in about 50% of youth examined that is verify research assumption and is thought provoking. Moreover these morbidities were found frequent in females than in males subjects that may be due to biological & social attributes fixed to female gender in society but relatively high proportion of females in sample may be one factor.

Our data indicates that in most subjects (70%) life style is not healthier and 58% of the respondents were not involved in regular physical activities (Tab. II). In the West, problems of inactivity and obesity have already come apparent in young individuals.¹⁸ Physical inactivity is found in more than 58% of the youth examined. Medically sedentary lifestyle itself may provoke other ill health like obesity which have shown significant epidemiological associations with depression, suicidal tendencies and also gastrointestinal symptoms amongst the youth. According to a report by WHO non communicable diseases kill people at a relatively younger age in SEAR compared to the rest of the world; one-third (34%) of the 7.9 million deaths in SEAR occur in those below the age of 60 years compared to 23% in the rest of the world¹⁹. It is known that low leisure-time physical activity and high time for watching TV is linked to the risk of diseases and syndromes like metabolic syndrome independent of exercise habits. A prospective study undertaken in Sweden 1981-2008 showed that these relationships extend over a large part of life, specifically between 16 to 43 years of age.²⁰

Excessive sedentary behavior has been found to have independent and deleterious associations with markers of adiposity and cardio metabolic disease risk²¹.

Throughout the last 20 years there has been a rise in a sedentary lifestyle in most developed countries, associated with insufficient or even a lack of undertaking any physical activity. Undoubtedly, this has arisen through the modern developments seen in technology, changes in lifestyle, coupled with ignorance about how physical activity affects the normal course of healthy body development. It is well recognized that a physically active lifestyle during childhood and adolescence increases the likelihood of maintaining such behavior in later years. In contrast, the unwillingness of youth to undertake physical

exercise leads to adopting a sedentary lifestyle in adulthood and advanced years.²²

Present study has depicted some statistically important co-variations (odds ratios) between healthy behaviors like physical activity, adequate sleep, taking daily bath and observing meals timings and the absence of selected PLGM (OR=1.01 - 2.09) and their presence in association of unhealthy life style attributes like taking fast food and smoking. At the same time tabulated data reflects that proportions of the subjects with healthy lifestyle attribute was high in the respondents free from PLGMs if column categories are interchanged and preventive association with odds ratios ranging 0.54 -0.98 was obtained.

Conclusion

1. Our youth's health is not in optimal state and many ill health have become accepted part of their life. Equally unhealthy life styles prevail and indicate linked with morbidities present.
2. Study findings provide important insights into how we might target much-needed health promotion strategies among youth that would best suit their measured needs.

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