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ORIGINAL ARTICLE

Socio-demographic and clinical profile of patients visiting general practitioner clinic for general health check-up in a tertiary care center of Nepal: a descriptive cross-sectional study

Sanjeeb Tiwari[1], Bipin Poudel[2], Apeksha Bista[3], Bunu Maharjan[4], Kritima Maharjan[4], Shubham Shrestha[5]

[1]Asst. Prof., Dept. of General Practice & Emergency Medicine, Tribhuvan University Teaching Hospital, Institute of Medicine, Tribhuvan University, Kathmandu, Nepal; [2]Medical Officer, Patan Hospital, [5]MBBS Student, Patan Academy of Health Sciences, Lalitpur, Nepal; [3]Medical Officer, Kathmandu Medical College & Teaching Hospital, Kathmandu, Nepal; [4]Research Assistant, Global Health Research & Medical Interventions for Development (GLOHMED) Nepal

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Correspondence:
Dr. Bipin Poudel
Dept. of Internal Medicine, Patan Hospital, Patan Academy of Health Sciences, Lalitpur, Nepal
Email: bipinpoudel@pahs.edu.np

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Abstract

Introduction: General Practitioners (GPs) are vital in preventive medicine and health promotion due to their frontline contact with the public. However, more research is needed on the sociodemographic and clinical profiles of the patients seeking care from general practitioners. Understanding these profiles can aid in developing effective interventions and strategies to enhance patient and caregiver participation in healthcare decisions. This study aimed to evaluate the sociodemographic and clinical profile of patients visiting a general practitioner clinic for general health check-ups in a tertiary care center in Nepal.

Method: A descriptive cross-sectional study was conducted in the Tribhuvan University Teaching Hospital, Maharajagunj, Kathmandu, Nepal from December 2020 to January 2021, including all the patients visiting the general practitioner clinic for general health check-ups. Relevant data were extracted using a structured proforma. Data was entered using Microsoft Excel 2019 and analyzed using IBM SPSS Statistics version 16.0.

Result: Out of 115 patients, the mean age was 45 + 14 with a female predominance of 60 (52.2%). 46 (40%) of the patients visited for general checkups which were followed by the majority of musculoskeletal problems. 38 (33.3%) of the participants were overweight. Regarding the lipid profile, the patient exhibited borderline abnormal levels, indicating the necessity to assess for screening, monitoring, and potential intervention.

Conclusion: Socio-demographic factors, existing medical conditions and lifestyle elements such as obesity and abnormal lipid profiles influence visits to primary care physicians. This information can aid in planning, resource allocation, prioritizing research, policymaking, guideline development, and training primary care professionals.

Keywords: Age; Gender; General Practitioners

INTRODUCTION

General Practitioners (GPs) serve as primary care physicians and are crucial in preventing illness and death. They contribute to the equitable distribution of health both within and across populations.[1] Primary care is a vital entry point to healthcare systems and provides care for a wide range of patients and complex illnesses.[2] A robust primary care infrastructure is linked to better health outcomes and lower healthcare costs.[3]

Moreover, the demand for primary care is continuously increasing.[4] Given these pressures, it is important to identify the most common conditions presented in primary care settings. This information can help in planning, resource allocation, setting research priorities, policymaking, developing guidelines, and training primary care professionals. There have been a few studies on the demographic data of patients visiting GP clinics[5], but there needs to be more information on the clinical profiles of these patients.

Therefore, this study aims to investigate the clinical and sociodemographic profiles of patients visiting GP clinics in a tertiary care center.

METHOD

A descriptive cross-sectional study was conducted among patients visiting for general health checkups in the Out-patient Department of General Practice, Tribhuvan University Teaching Hospital, Maharajgunj, Kathmandu, Nepal. We used the non-probability purposive sampling method to collect data from January 2020 to December 2020. The number of patients visiting the OPD was low due to the COVID pandemic. Patients who did not give consent were excluded. Regarding minors, consent was taken from the parents. The predesigned proforma containing clinical, sociodemographic, and laboratory parameters (including lipid profile) was used to retrieve data from the hospital record.

Data was coded and entered in Microsoft Excel 2019 and analyzed using IBM SPSS Statistics version 16.0. A point estimate at a 95% CI was calculated. Descriptive statistics was evaluated as frequency and percentage for binary data; and mean and standard deviation for normally distributed continuous data.

RESULT

This study involved 115 participants. The baseline demographic and clinical characteristics of the participants are summarized in Table 1.

Figure 1 shows that two-fifths 46 (40%) of the participants visited only for a general health checkup without any specific complaints. Among them 19 (16.5%) presented

Table 1. Socio-demographic characteristics (n=115)

Parameters	f (%)
Age(years)	
Mean ± SD	45+0.14
Range	13-80
Median	44
12-45	60 (52.1%)
45-59	42 (36.5%)
>60	13 (11.3%)
Gender	
Male	55 (47.8%)
Female	60 (52.2%)
Religion	
Hindu	111 (96.5%)
Buddhist	2 (0.17%)
Christian	2 (0.17%)
Residency	
Urban	72 (62.6%)
Rural	43 (37.4%)

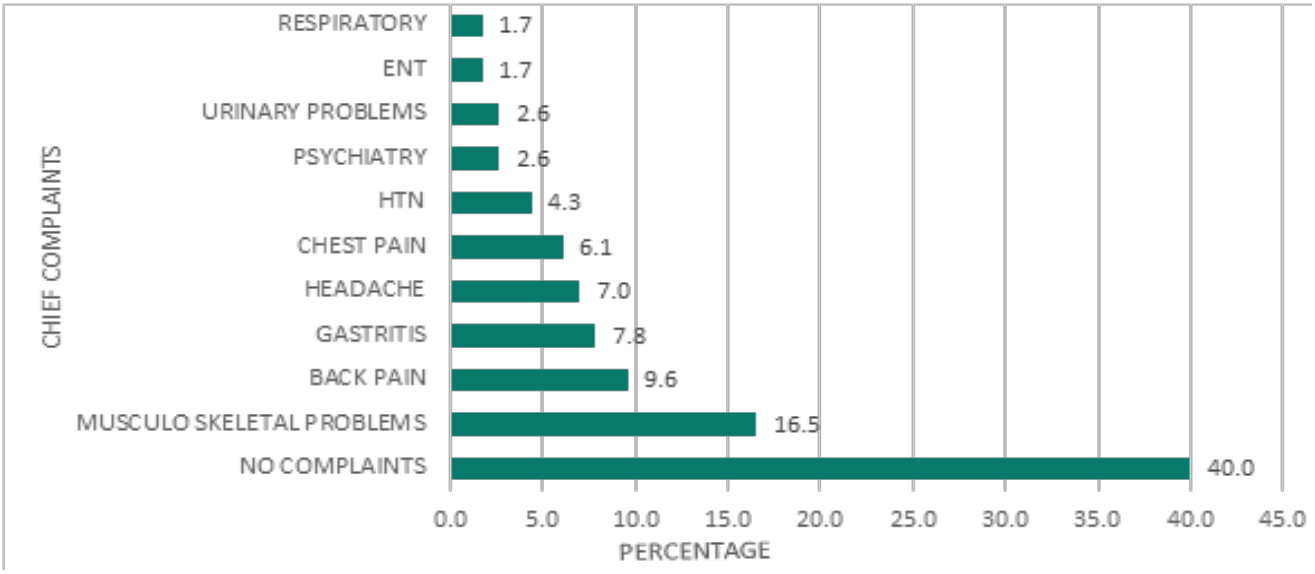

Figure 1. Chief complaints of the participants (n=115)

with musculoskeletal problems like joint pain, leg pain, knee discomfort, and generalized body ache. In contrast only 2 (1.7%) of the participants came with complaints related to the respiratory system like the common cold and shortness of breath.

Table 1 illustrates the mean age was 45 years, with a standard deviation of 14 years. Among the participants, 60 of them (52.17%) identified as females. Hinduism was the predominant religious affiliation, representing 111 (96.5%) of the participants. The majority, 72 (62.6%) participants, were residents of urban areas.

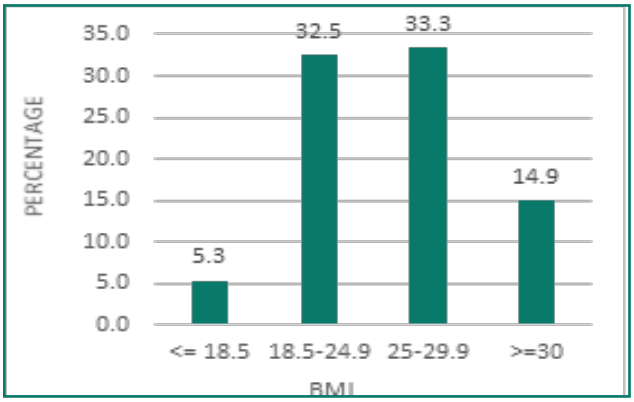

Figure 2. Body mass index (n=114)

Among 114 participants, the a
verage Body Mass Index (BMI) was calculated at 25.63 (Fig 2).

When examining vital signs, less than half i.e. 55 (47.8%) of the participants exhibited normal body temperature, while the majority of them 107 (93.1%) had a normal respiratory rate. Concerning blood pressure, 54 (47%) of the participants fell within the normal range, while 16 (13.9%) were categorized as hypertensive (Table 2).

Table 2. Baseline vital signs characteristics (n=115)

Parameters	n(%)
Temperature (Degree Celsius)	
<97	54 (46.9%))
97-99	55 (47.8%)
>99	6 (5.3%)
Pulse rate	
<60	4 (3.4%)
60-100	105 (91.3%)
>100	6(5.3%)
Respiratory rate	
<12	1 (0.8%)
12-20	107 (93.1%)
>20	7 (6.1%)
Blood pressure	
<120/80	45 (39.1%)
120/80-140/90	54 (47%)
>140/90	16 (13.9%)

Table 3. Laboratory parameters (n=115)

Parameters	n(%)
Hemoglobin	
Male	
<14	52 (46.4%)
14-18	60 (53.6%)
>18	0
Female	
<12	9 (8%)
12-16	88 (78.6%)
>16	15 (13.4%)

Table 3 shows that less than half 52 (46.4%) of the male participants have low hemoglobin levels. On the other hand, only 9 (8%) of the female participants have low hemoglobin levels.

Table 4. Complete blood count(n=115)

Investigation parameters	Mean ± SD
PCV	42.6±4.36
RBC	4.98±0.57
ESR	20±14
WBC	6963±3994
Platelets	229368.4±66387.21

Complete blood count findings are summarized in Table 4.

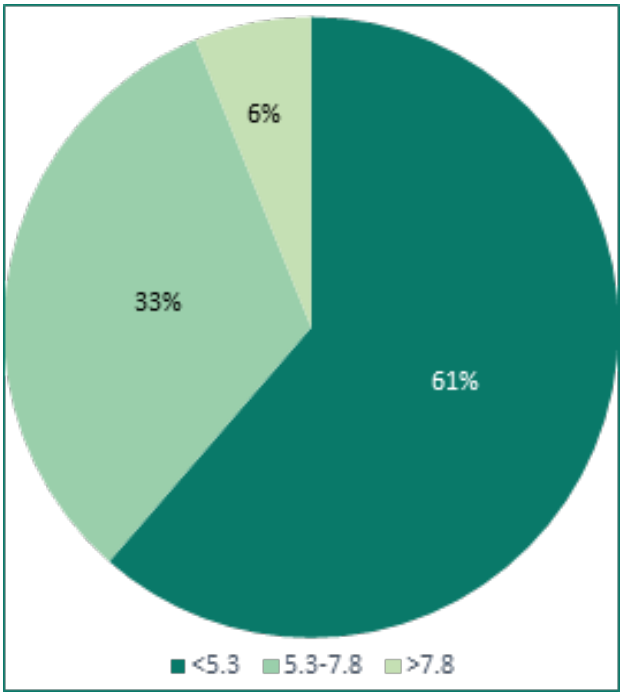

Figure 3. Blood sugar level of the participants

Among the participants, 70 (61%) had normal blood sugar levels, and 7 (6%) of them had elevated blood sugar levels (Fig 3).

Table 5. Metabolic panel (n=115)

Investigation	n(%)
Urea (mmol/L)	
<1.8	1 (0.9%)
1.8-7.1	113 (98.2%)
>7.1	1 (0.9%)
Creatinine (mmol/L)	
<45	0
45-110	113 (98.2%)
>110	2 (1.8%)
Uric acid (micro mol/L)	
<155	5 (4.3%)
155-428	105 (91.4%)
>428	5 (4.3%)

Table 5 represents the metabolic panel where among 115 participants, 113 (98.2%) had normal blood urea and creatinine levels. Furthermore, 5 (4.3%) of the participants had high uric acid levels.

Table 6. Lipid Profile (n=115)

Investigation parameters	Mean ± SD
Cholesterol	4.56±0.96
HDL	1.1±0.2
LDL	2.8±0.8
Triglycerides	1.59±1.17

Table 6 summarizes the findings of the lipid panel of all the participants in terms of mean and standard deviation.

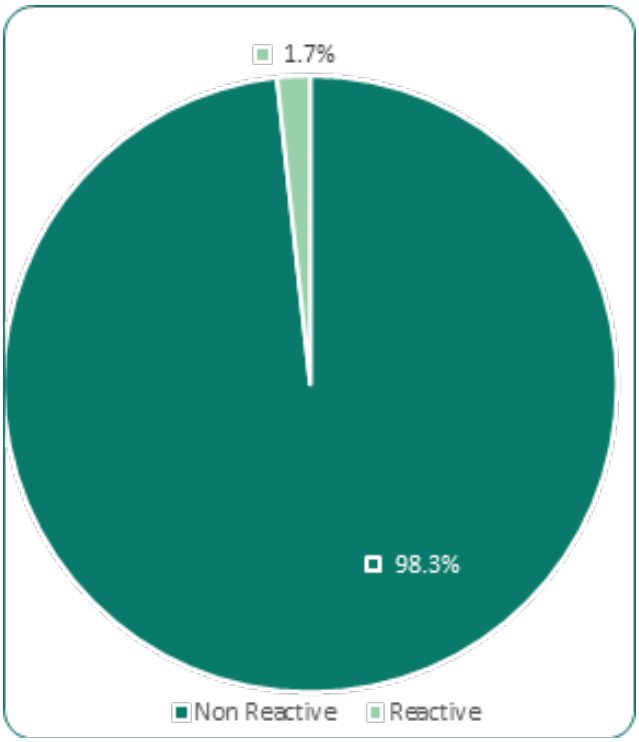

Figure 4. VDRL

Figure 4 shows that 113 (98.3%) demonstrated non-reactive VDRL results.

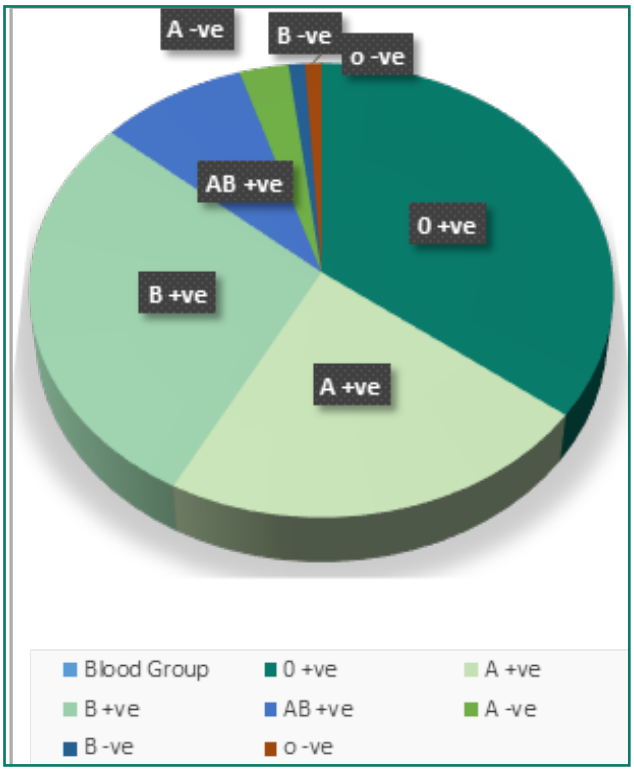

Figure 5. Blood Group of the Participants (n=114)

Regarding blood groups, 36 (31.3%), 23 (20%), 29 (25.2%), 9(7.8%), and 3 (2.6%) of the participants possessed O positive, A positive, B positive, AB positive, and A negative blood groups, respectively (Fig 5).

Out of 115 participants, 103(89.6%) underwent ultrasonography, revealing normal findings in 49 (47.6%). Fatty liver was detected in 31 (30.1%) while prostatomegaly, nephrolithiasis, and hepatomegaly were observed in 7.8%, 3.9%, and 2.9% respectively Fig 6).

DISCUSSION

To our knowledge, there are not many studies to assess the socio-demographic and clinical profile of patients visiting a general practitioner clinic for general health check-ups in a tertiary care center in a setting like ours. General Practitioners (GPs) play a key role in preventive medicine and health promotion due to their frequent and frontline contacts with the public.[6,7] Despite the role of the general practitioner in primary health care, since the general practitioner (GP) is the primary point of contact for obtaining information on a wide range of health topics for many patients, there is a limited amount of empirical research conducted focusing on sociodemographic and clinical profile of patients seeking care from general practitioners.[8] Such knowledge can guide healthcare professionals in developing effective interventions and

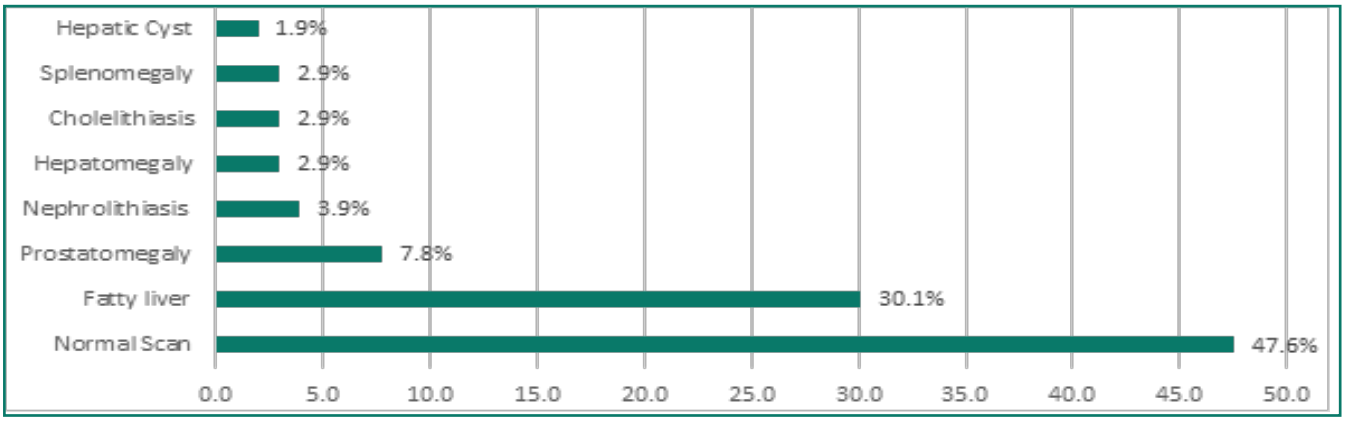

Figure 6. USG findings.

strategies to help patients and their family caregivers obtain high-quality health information and actively participate in healthcare decisions regarding themselves and their loved ones.

A total of 115 patients visiting general practitioners over 12 months were included in our study. The mean age was 45 years (SD 14), with a female predominance (60 patients, 52.2%). Most adults were below the age of 60 years. This is similar to the study conducted by Lim MT et al., which reported a mean age of 41.9 years (SD 15.5), with more women (61.6%) and adults below the age of 50 years (67.2%) seeking care from general practitioners.[9] This study found that age, sex, and the type of primary care setting were significant determinants of healthcare-seeking behavior. This finding is consistent with previous studies, which showed that women consult their general practitioners more often than men and are more proactive in seeking healthcare.[10] In contrast, Baudier et al. found that female sex was associated with fewer consultations with GPs.[11] Similarly, Piparia V. reported a male predominance (54.4%) in their study, which contrasts with our findings.[12]

Similar to the previous study, younger patients were found to seek primary care more frequently than the elderly population. [(10)] Adar T. et al., in their 4-month study conducted at seven different clinics, reported that the majority of visits (71.43%) took place in urban clinics which reflects the importance of conducting such studies at central hospitals like ours, which have a higher patient flow.[13]

The asymptomatic general check-up (AGCU) is a common reason for consultation in primary care comprising up to 6% of all primary care consultations. However, little is known about AGCU in general clinical practice.[14] In our study, 40% of the patients visited for asymptomatic general check-ups, which is an encouraging trend, especially considering that over 60% of GPs in another study believed that AGCU could be clinically useful.[14] Besides this finding, the majority of patients visited for musculoskeletal problems whereas only 1.7% visited for respiratory problems. In contrast to this, Adar T et al found the majority of the visits were for upper respiratory tract disease.[13] However, the frequency of visits for urinary problems was comparatively less in our study. Overall, patients were more inclined to seek care for physical health concerns than for mental health concerns which is similar to the finding of Thompson AE.[10]

In our study, overweight individuals (33.3%) visited GPs more frequently compared to individuals in other BMI categories (underweight, normal weight, obese). This contrasts with the findings of Jørgensen et al., where underweight individuals consulted GPs more frequently than those in other BMI categories.[15] Data on baseline vital characteristics has also been included in our study as age progresses, vital signs, which indicate changes in physiological processes, typically change. Healthcare providers need to grasp the diverse physiological and pathological processes that influence these measurements and their accurate interpretation. Using a triage method that omits vital signs may fail to reflect the urgency of a patient's presentation in general practice.[16] Regarding lipid profile, the patient had borderline abnormal levels suggesting that the need for screening, monitoring, and potential intervention must be evaluated.

Despite achieving a satisfactory response rate, our study was limited by a relatively small overall sample size, hence further study is needed to explore their significance. The focus on a single center may restrict the applicability of our findings to the broader population. A similar survey at multiple centers with a larger and more diverse population is recommended to enhance the generalizability. Other limitations include the cross-selection design of the study which necessitates caution when interpreting causal associations. Additionally, we had insufficient data on participants' education, and income, which are important factors influencing healthcare-seeking behavior. The study recruited participants directly from general practices, which may have under-represented patients who seldom or never visit a GP.

CONCLUSION

The study highlights the pivotal role of General Practitioners (GPs) in preventive medicine and health promotion, emphasizing their frequent patient interactions and frontline position in healthcare. Despite the significance of GPs as primary sources of health information, there remains a gap in empirical research on the sociodemographic and clinical profiles of patients seeking their care. Understanding these profiles could aid in developing targeted interventions to enhance patient engagement and healthcare decision-making. The study also underscores the prevalence of asymptomatic general check-ups in primary care and highlights variations in healthcare-seeking patterns across different health concerns. Perceived healthcare-seeking behavior for psychosocial health concerns consistently lagged behind that for physical health concerns.

DECLARATIONS

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Conflict of Interest

None

Funding

None

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