

Original Research Article

Assessing the dual challenge of hypertension and dyslipidemia comorbidity: a real-world need gap analysis on diagnosis, management, drug therapy and patient related factors

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ABSTRACT

Background: Hypertension and dyslipidemia frequently coexist and significantly elevate the risk of cardiovascular disease (CVD) through shared mechanisms. Despite clear evidence supporting integrated management, real-world gaps persist in diagnosis, monitoring, and patient adherence.

Methods: This nationwide cross-sectional survey was conducted among 842 healthcare professionals (HCPs) across India to evaluate current clinical practices, challenges, and educational needs in managing this dual comorbidity. A structured 20-item questionnaire captured insights on comorbidity prevalence, diagnostic approaches, therapeutic practices, and barriers to optimal care.

Results: The survey revealed substantial coexistence of hypertension and dyslipidemia, with 40.2% of HCPs reporting dyslipidemia in 10-20% of hypertensive patients and 38.8% observing hypertension in 20-30% of dyslipidemic cases. Comorbidity was most prevalent in adults aged 45-60 years (51.9%). Lifestyle factors were the leading contributors (38.3%), followed by age-related factors (25.4%). Despite routine lipid panel use, early diagnosis was hindered by poor follow-up (24.6%), asymptomatic presentation (23.3%), and inadequate screening guidelines (23.0%). Poor patient adherence was identified as the major treatment challenge (54.7%), while guideline sufficiency was divided, with 45.5% rating them adequate and a similar proportion finding them only somewhat sufficient.

Conclusions: Overall, the findings highlight substantial unmet needs in the real-world management of hypertension with dyslipidemia. Strengthened patient education, structured lifestyle support programs, regular lipid testing, and enhanced clinician training may improve early detection and long-term outcomes. A more unified, patient-centered approach is essential to reducing the growing cardiometabolic burden in India.

Keywords: Hypertension, Dyslipidemia, Cardiovascular risk, Patient adherence, India healthcare practices

INTRODUCTION

Hypertension and dyslipidemia frequently present together as comorbidities and are major contributors to CVD and mortality.¹ Their combined presence accelerates atherosclerosis and significantly raises the risk of coronary artery disease, stroke, and other serious cardiovascular events when compared to either condition alone.² Their

shared underlying mechanisms, such as oxidative stress, systemic inflammation, and endothelial dysfunction, add to the complexity of their clinical management. Risk is further heightened by factors like unhealthy lifestyle habits, genetic susceptibility, and chronic health conditions, particularly in individuals aged 45 and above. Although diagnostic technologies and treatment options have evolved, challenges such as late diagnosis, limited

adherence to clinical guidelines, and poor patient compliance continue to hinder effective disease control. Timely detection and intervention remain essential for reducing associated cardiovascular risks and improving outcomes.^{1,3}

Epidemiological research suggests that hypertension and dyslipidemia coexist in approximately 15-31% of cases, and nearly 40% of individuals newly diagnosed with hypertension exhibit at least 1 form of lipid abnormality.⁴ These shared risk factors, age, obesity, poor diet, physical inactivity, smoking, excessive alcohol intake, and metabolic syndrome, create a common ground for both disorders. Conditions like chronic kidney disease (CKD), hypothyroidism, and non-alcoholic fatty liver disease add to the dual burden. This complex interplay of factors highlights need for customized approaches to prevention and treatment. Research consistently shows that the coexistence of hypertension and dyslipidemia magnifies cardiovascular risk through overlapping pathways such as inflammation and oxidative damage. These intertwined conditions require nuanced and the evidence-driven

management strategies. Early screening and proactive care are key to reducing their long-term impact.⁵⁻⁷ Managing one condition without considering the other creates a significant cardiovascular risk. Therefore, it is essential to use integrated strategies that include a combination of antihypertensive medications, lipid-lowering therapies, lifestyle interventions, and ongoing monitoring tailored to the individual to reduce risk effectively. Adhering to these protocols can significantly enhance therapeutic outcomes and patient quality of life.^{8,9}

CVDs are the leading cause of early death around the world. India makes a significant contribution to this increased burden, mainly due to the rising prevalence of metabolic risk factors. Despite well-established guidelines, real-world adherence to antihypertensive and lipid-lowering therapies often remains suboptimal, largely due to fragmented care, therapeutic inertia, and poor patient engagement. Therefore, understanding clinic practices and clinicians' perspectives on care will provide actionable insights into how to strengthen integrated cardiovascular care (Figure 1).

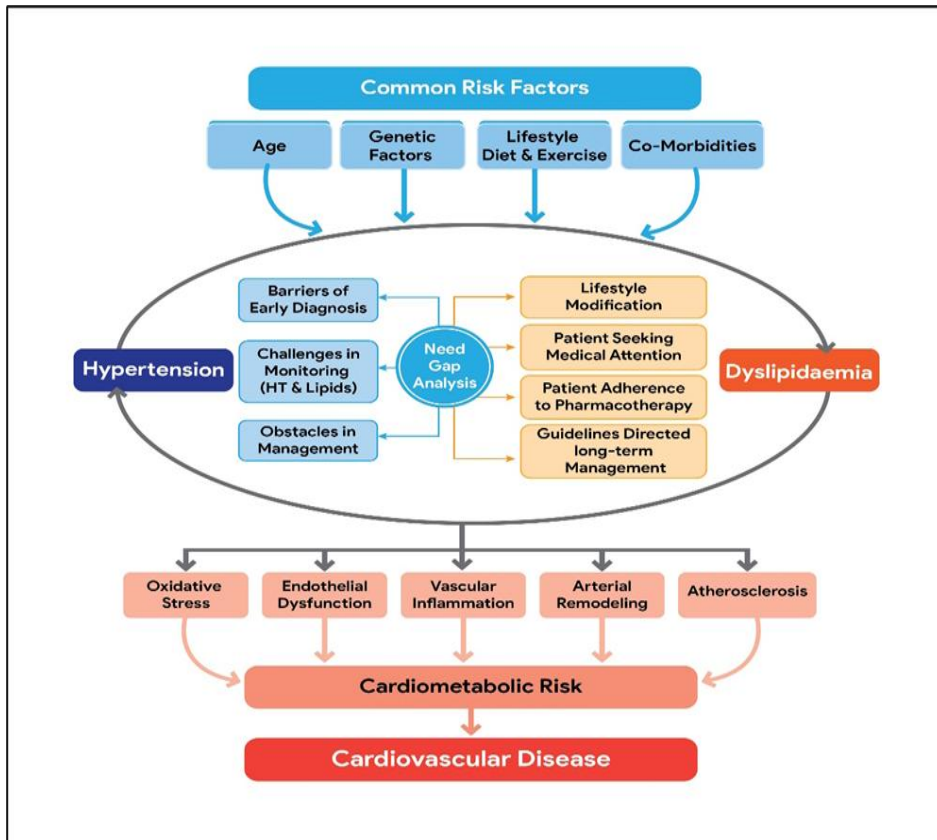


Figure 1: Common risk factors lead to hypertension and dyslipidemia.

We conducted a survey to provide insights from HCPs on current clinical practices, challenges faced, and strategies employed in managing patients with both hypertension and dyslipidemia. Understanding these real-world perspectives can help inform better treatment frameworks and improve cardiovascular health outcomes for affected individuals.

METHODS

Survey design and participants

This survey was an online cross-sectional survey conducted from 28th November 2024 to 10th January 2025 among 842 HCPs in multi-center clinical settings across

India. HCPs who were involved in the diagnosis and management of hypertension and dyslipidemia participated in the survey, while non-clinical professionals and incomplete responses were excluded. A 20-question structured questionnaire was developed targeting management practices, patient behavior, and adherence to guidelines. This was a descriptive, exploratory, real-world survey questionnaire. Outcomes were assessed using frequency-based response analysis. The survey aimed to evaluate current clinical practices, identify existing gaps in the treatment landscape, and explore educational strategies to overcome challenges in comorbidity management.

Survey outcomes

The survey focused on perspectives on the need for the management and challenges of hypertension and dyslipidemia among patients with comorbid conditions. The three outcomes studied were: enhancing clinical practices for comorbidity management, identifying gaps in current treatment approaches, and developing educational strategies to address challenges in management.

Data analysis

The electronically collected data were analyzed using Microsoft excel 365 version 22502, March 11.

RESULTS

Hypertension and dyslipidemia are common comorbidities, and the coexistence of these conditions increases the risk of developing CVDs. The interrelationship between hypertension and dyslipidemia may be due to common underlying pathophysiological mechanisms, such as endothelial dysfunction, insulin resistance, and vascular endothelial inflammation. To better understand the extent of comorbidity of hypertension and dyslipidemia in the everyday clinical setting, our survey asked practitioners about the prevalence of concurrent hypertension and dyslipidemia.

The survey included responses from 842 HCPs who focused on the comorbid management of hypertension and dyslipidemia. Among hypertensive patients, 40.2% of HCPs reported that 10-20% had been diagnosed with dyslipidemia during their treatment, while 31.1% reported a slightly higher comorbidity rate, with 20-30% of patients. Whereas 18.9% of respondents observed this overlap in more than 30% of their hypertensive cases, and a smaller group (9.7%) noted that fewer than 10% of their hypertensive patients had dyslipidemia at any point. Conversely, among 838 HCP respondents who provided data for patients with dyslipidemia, 38.8% reported that 20-30% of their dyslipidemic patients also had hypertension, and 37.9% observed this overlap in 10-20% of cases. Additionally, 17.7% of respondents indicated that more than 30% of their dyslipidemic patients were also hypertensive, while only 5.6% reported such comorbidity in fewer than 10% of cases (Figure 2).

These results indicate an important bidirectional relationship in practice between hypertension and dyslipidemia, illustrating the common co-occurrence of these cardiovascular risk factors and the need for combined screening and management.

Following the assessment of overall comorbidity rates, respondents were asked to identify the age group in which they most commonly observed coexistence of hypertension and dyslipidemia. Majority of HCPs 51.9% identified the 45-60-year age group as the most affected by comorbid hypertension and dyslipidemia. Additionally, 38.5% reported that patients aged 30-45 years frequently present with both conditions. A smaller proportion (5.2%) of patients over 60 years old were observed to have this comorbidity, while only 4.4% of those under 30 years of age noted its occurrence (Figure 3). This suggests that the coexistence of hypertension and dyslipidemia tends to increase with age, reflecting the progressive impact of lifestyle and metabolic factors over time.

To explore the potential drivers of comorbidity, respondents were asked to identify the primary contributing factors for hypertension and dyslipidemia in their patients. The majority of HCPs 38.3% identified lifestyle-related factors, such as diet and physical activity, as the primary contributors, followed by age-related factors, 25.4%, while 18.4% pointed to genetic predisposition. Another 17.9% of respondents considered the underlying chronic conditions to be the leading cause of the coexistence of these two conditions (Figure 4). These results suggest that factors related to lifestyle, particularly diet and level of physical activity, contribute most to the co-occurrence of hypertension and dyslipidemia, demonstrating the importance of clinical interventions that target preventive measures.

There is a growing recognition of insulin resistance as a significant metabolic factor in the coexistence of hypertension and dyslipidemia. In this survey of 842 HCPs, a large proportion reported that they often (40.0%, n=337) or sometimes (40.0%, n=337) consider insulin resistance when assessing patients with both conditions. 15.4% (n=130) of HCPs reported taking it into account always, and a small minority (4.5%, n=38) that they rarely take it into consideration. These findings illustrate that insulin resistance is an important consideration for many HCPs in clinical practice, demonstrating the highest need for a comprehensive metabolic assessment in patients with both hypertension and dyslipidemia.

Routine lipid monitoring is a well-established part of managing patients with hypertension due to the high rates of concurrent dyslipidemia. To assess current practices in clinical care, respondents were asked about the frequency of using lipid panels to assess hypertensive patients. Among 841 respondents, a considerable proportion of HCPs reported that they often use lipid panels (323; 38.4%) as part of routine evaluation, while (264; 31.4%) stated that they always include them in standard

assessments. Additionally, (237; 28.2%) of respondents indicated that lipid panels are sometimes incorporated, and only small proportion (17; 2.0%) reported rarely using them.

These findings suggest that most clinicians routinely incorporate lipid panels to assess the in the management of hypertensive patients, reflecting the importance of monitoring dyslipidemia in this comorbid population.

Early detection of dyslipidemia in patients with hypertension is vital for preventing long-term cardiovascular complications. Among 841 respondents, 463 (55.0%) considered early diagnosis of dyslipidemia in hypertensive patients significantly important, 202 (24.0%) rated it as very highly important, and 166 (19.7%) as moderately important, while only 10 (1.2%) assigned it low importance. These results emphasize that the majority of clinicians recognize early diagnosis as a critical component of managing hypertensive patients, supporting proactive screening and intervention strategies.

Although lipids monitoring is still a very important component of the patient assessment, many HCPs are still struggling with understanding and managing the underlying pathophysiology of concurrent hypertension and dyslipidemias. To explore these difficulties, respondents were asked to identify the most challenging aspects contributing to the management of both conditions.

Out of 842 respondents, a total of 1,730 responses were recorded, as multiple selections were permitted. As shown in Table 1, a substantial proportion of HCPs (30.8%, n=532) reported that understanding genetic influences was the most challenging aspect. This was followed by shared risk factors (25.5%, n=442), oxidative stress and endothelial dysfunction (21.9%, n=380), and systemic inflammation (21.7%, n=376).

Table 1: Comorbidity of hypertension and dyslipidemia: challenges in combined pathophysiology.

Challenging aspects in combined pathophysiology	N
Understanding genetic influences	532 (30.8%)
Identifying shared risk factors	442 (25.5%)
Dealing with oxidative stress and endothelial dysfunction	380 (21.9%)
Managing systemic inflammation	376 (21.7%)

HCPs acknowledge complex link between hypertension and dyslipidemia, but understanding the genetic and biological mechanisms remains challenging, highlighting the need for deeper research and collaborative care.

Early detection of hypertension and dyslipidemia comorbidity remains a clinical challenge due to several diagnostic barriers. Among 842 respondents providing a total of 2,050 responses, a substantial portion of HCPs

(24.6%) identified limited patient follow-up as the primary barrier to early diagnosis. This was closely followed by the absence of noticeable symptoms (23.3%) and inadequate screening guidelines (23.0%). Additionally, 16.1% of respondents cited lack of clinician awareness, while 12.9% reported patient denial as a contributing factor (Figure 5).

These results indicate that both patient-related and systemic factors contribute to delayed recognition of hypertension and dyslipidemia comorbidity, underscoring the importance of structured screening and continuous patient engagement.

Effective management of hypertension and dyslipidemia requires consistent adherence to prescribed pharmacotherapy. To evaluate this aspect, HCPs were asked to report how often their patients comply with medication regimens for both conditions.

Among 840 respondents, the majority (550; 65.5%) observed that patients frequently adhere to their prescribed treatment, while (114; 13.5%) noted very frequent adherence. In contrast, (156; 18.6%) of HCPs reported that patients adhere only occasionally, and a small proportion (20; 2.4%) indicated that adherence is rarely maintained.

These findings suggest that, although medication adherence is generally good among patients with hypertension and dyslipidemia, a significant minority still demonstrate inconsistent compliance, underscoring the need for sustained counselling and follow-up to improve long-term outcomes.

Even with improvements in treatment, the concurrent treatment of hypertension and dyslipidemia is still a significant challenge in clinical practice. HCPs conducted a survey to assess the main barrier facing them when treating these two comorbidities together. Among 841 respondents, the majority (54.7%) identified patient adherence as the most significant challenge. Additionally, 22.8% cited medication side effects, while 13.5% pointed to financial constraints as a contributing factor. A smaller proportion (8.8%) highlighted the lack of integrated treatment protocols as a barrier to effective management of both conditions (Figure 6).

These findings underscore that patient-related factors, particularly adherence, remain the primary hurdle in achieving optimal outcomes in patients with coexisting hypertension and dyslipidemia.

When asked about the sufficiency of current guidelines for managing comorbid hypertension and dyslipidemia, opinions among HCPs were nearly divided. Nearly half (45.5%) found the existing guidelines sufficient, while 44.6% felt they were only somewhat sufficient. A smaller group (7.5%) considered them insufficient, and 2.4% reported being unfamiliar with current guidelines (Table 2). These findings suggest that while most HCPs acknowledge the relevance of existing protocols, there

remains a need for greater clarity and practical integration in clinical settings.

Table 2: Comorbidity of hypertension and dyslipidemia: sufficiency of current guidelines.

Sufficiency of current guidelines	N
Sufficient	384 (45.5%)
Somewhat sufficient	375 (44.6%)
Insufficient	63 (7.5%)
Not familiar with guidelines	20 (2.4%)

Diet plays a crucial role in managing patients with coexisting hypertension and dyslipidemia. Among the responses, a significant proportion of HCPs (612; 29.3%) emphasized a low saturated fat diet, followed by low-sodium (561; 26.8%), high-fibre (485; 23.2%), and low-sugar (432; 20.7%) as dietary recommendations.

Building dietary interventions, HCPs were also asked about the sufficiency of lifestyle modifications in managing early stages of hypertension and dyslipidemia. According to the survey, most HCPs (57.9%) believe lifestyle changes are effective only in certain cases, while 27.3% consider them sufficient in most cases. A smaller proportion (12.2%) feel lifestyle modifications are generally inadequate, and 2.5% remain uncertain.

Following the recognition that lifestyle modification alone is often insufficient, respondents were asked which additional support measures would most effectively help patients adopt and maintain these changes. Among 1,739 responses, a significant portion of HCPs (36.8%) identified exercise programs as the most effective support, followed by stress management workshops (28.9%) and nutritional counselling (24.9%). A smaller group (9.4%) highlighted peer support groups as helpful in facilitating lifestyle modifications (Table 3).

Table 3: Comorbidity of hypertension and dyslipidemia: lifestyle modifications.

Variables	N (%)
Patients' management with lifestyle modifications total no. of HCPs, (n=842)	
Specific cases	488 (57.9)
In most cases	230 (27.3)
Insufficient	103 (12.2)
Uncertain	21 (2.5)
Additional support for adopting lifestyle modifications (n=1739)	
Exercise programs	640 (36.8)
Stress management workshops	503 (28.9)
Nutritional counselling	433 (24.9)
Peer support group	163 (9.4)

These findings indicate that structured programs and educational interventions, particularly those promoting physical activity and stress management, are considered

essential by clinicians to enhance patient adherence to lifestyle changes.

In line with emphasizing lifestyle and dietary management, HCPs were asked about the frequency of lipid monitoring in patients with coexisting hypertension and dyslipidemia. Among 842 respondents, 50.2% reported monitoring lipid levels every 3 months, 38.1% every 6 months, 6.9% annually, and 4.7% only when clinically indicated.

Consistent with the need for regular lipid monitoring, HCPs were asked about the primary challenges they face when tracking patients with both hypertension and dyslipidemia. The majority (57.7%) reported that ensuring patient compliance with follow-up is the most frequent challenge. Additional concerns included limited availability of reliable monitoring tools (21.7%), lack of time for regular monitoring (17.6%), and difficulty interpreting fluctuating readings (3.0%).

These results highlight that patient adherence, resource availability, and time constraints key obstacles in effective monitoring, emphasizing importance of streamlined follow-up and accessible monitoring strategies.

Building on the challenges of monitoring patients, HCPs were asked which methods they find most effective for educating patients about tracking their hypertension and dyslipidemia. Among 840 respondents, the majority (57.1%) consider in-person counselling sessions, followed by 18.9% believe digital tools and mobile apps are effective, while 17.6% favor written materials and pamphlets. A smaller group (6.2%) views group sessions or workshops as an effective educational method (Table 4).

Table 4: Comorbidity of hypertension and dyslipidemia: common challenges in patient monitoring and effectiveness of education.

Variables	N (%)
Common challenges in monitoring patients total no. of HCPs, (n=842)	
Patient compliance with follow-ups	486 (57.7)
Reliable monitoring tools	183 (21.7)
Lack of time	148 (17.6)
Interpretation of fluctuating readings	25 (3.0)
Effectiveness of patient education total no. of HCPs, (n=840)	
In-person counselling	481 (57.1)
Digital tools and mobile apps	159 (18.9)
Written material and pamphlets	148 (17.6)
Group sessions or workshops	52 (6.2)

Understanding patient healthcare-seeking behavior is crucial for early detection and management of comorbid hypertension and dyslipidemia. Among 841 respondents, (383; 45.5%) of HCPs reported that such patients seek medical attention only occasionally, while (255; 30.3%)

indicated that patients regularly pursue medical care during the early stages. In contrast, (116; 13.8%) observed patients wait until symptoms appear, and (87; 10.3%) stated that they rarely seek care during the early stages. These findings highlight that inconsistent healthcare-seeking behavior may delay early diagnosis, underscoring the need for increased patient awareness and proactive screening strategies.

Lifestyle interventions offer modest short-term improvements in blood pressure and lipid levels, which may translate into more significant long-term benefits. Patient adherence is strongly influenced by effective

education and communication, both of which are essential for encouraging and sustaining lifestyle changes. In terms of adoption, more than half of HCPs (471; 55.9%) believed that patients are likely to adopt lifestyle modifications for managing hypertension and dyslipidemia. In comparison, (186; 22.1%) felt patients are somewhat likely, and (179; 21.3%) considered them very likely to do so. Only a small minority (6; 0.7%) indicated that patients are unlikely to adopt such changes. These findings suggest that most clinicians are optimistic about patient adherence. However, differences in perception highlight the need to improve patient education, motivation, and follow-up strategies to ensure long-term success.

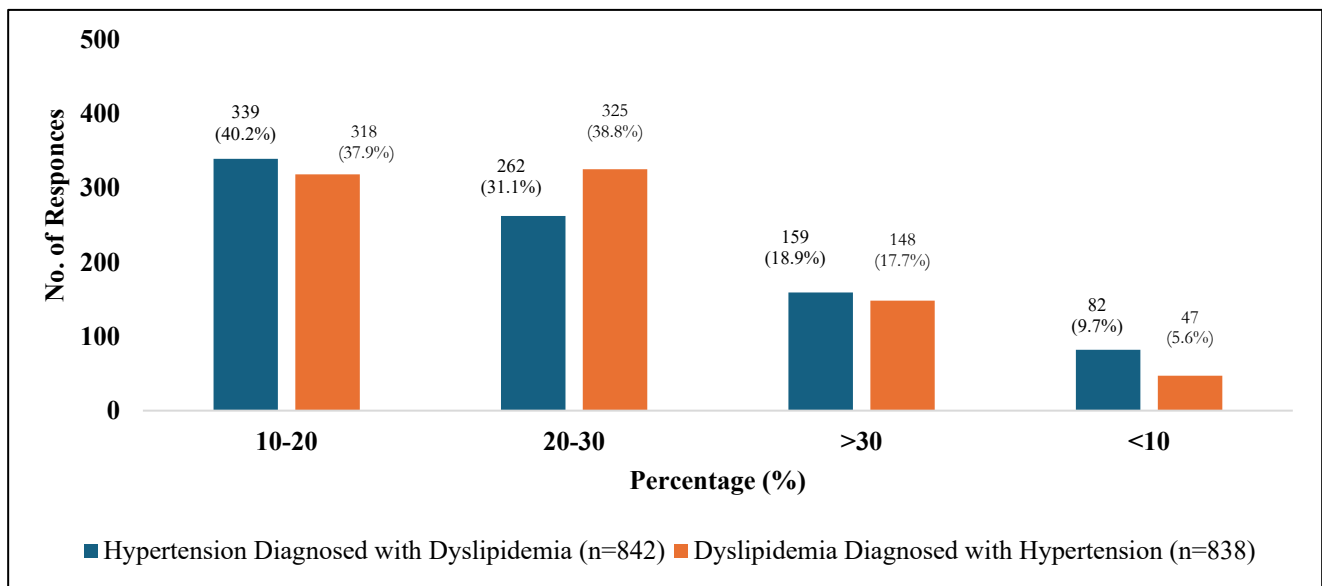


Figure 2: Bidirectional comorbidity of hypertension with dyslipidemia and dyslipidemia with hypertension.

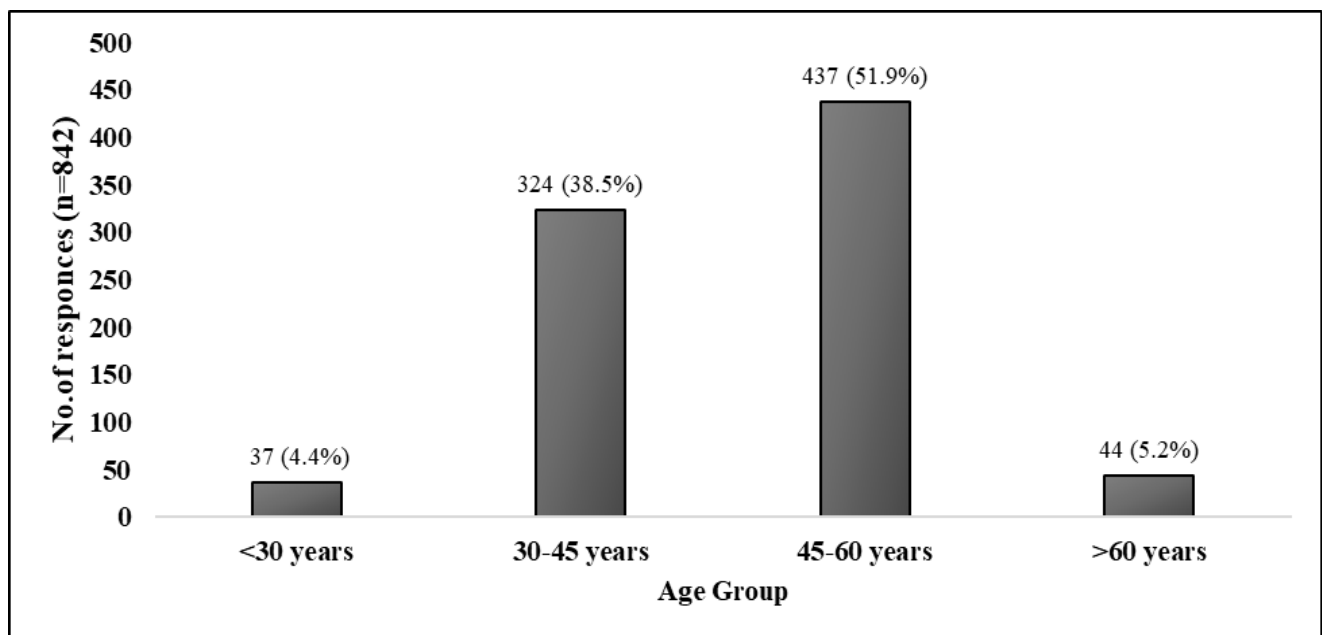


Figure 3: Comorbidity rate of hypertension and dyslipidemia as per age group.

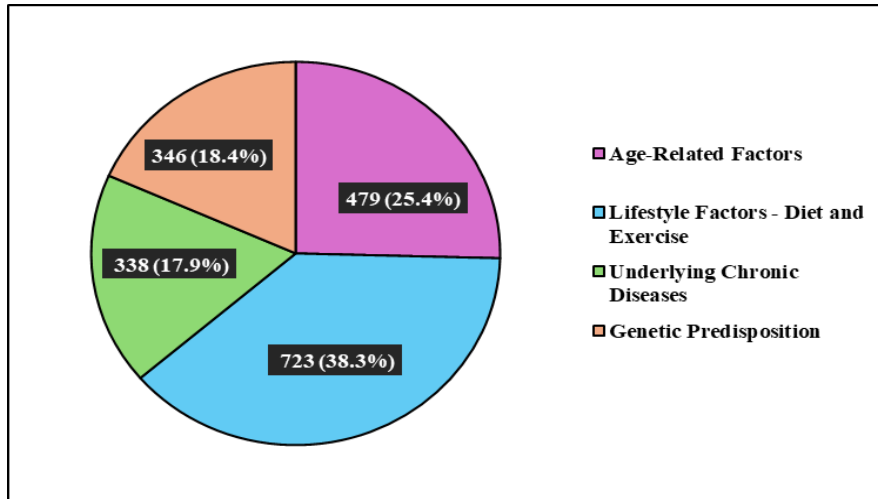


Figure 4: Comorbidity of hypertension and dyslipidemia: primary contributing factors.

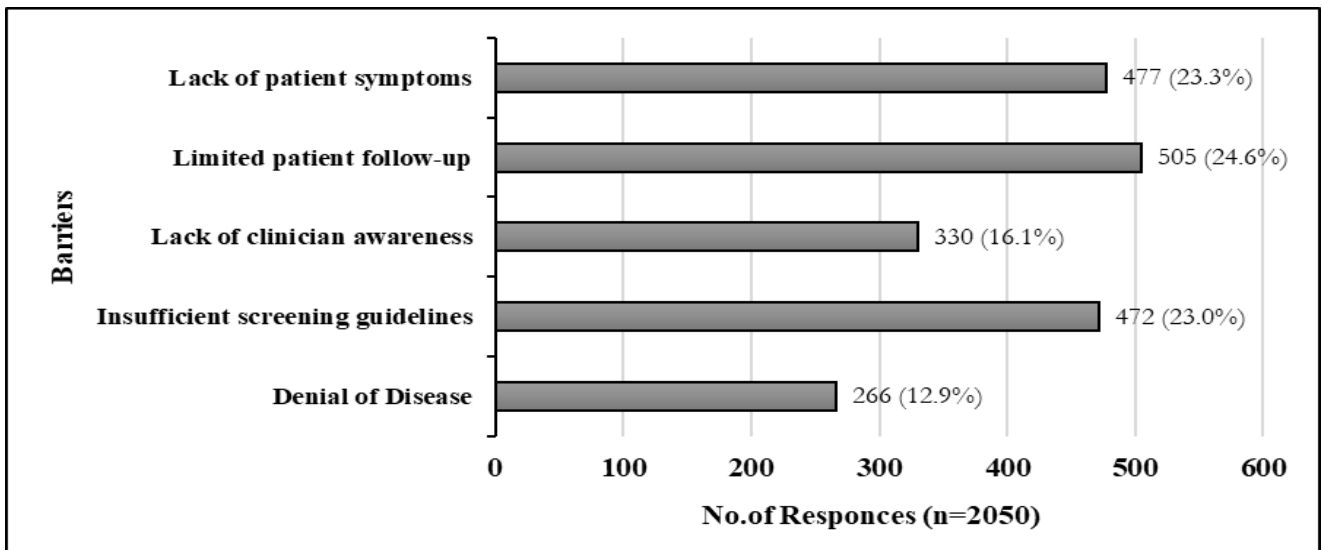


Figure 5: Comorbidity of hypertension and dyslipidemia: barriers to early diagnosis.

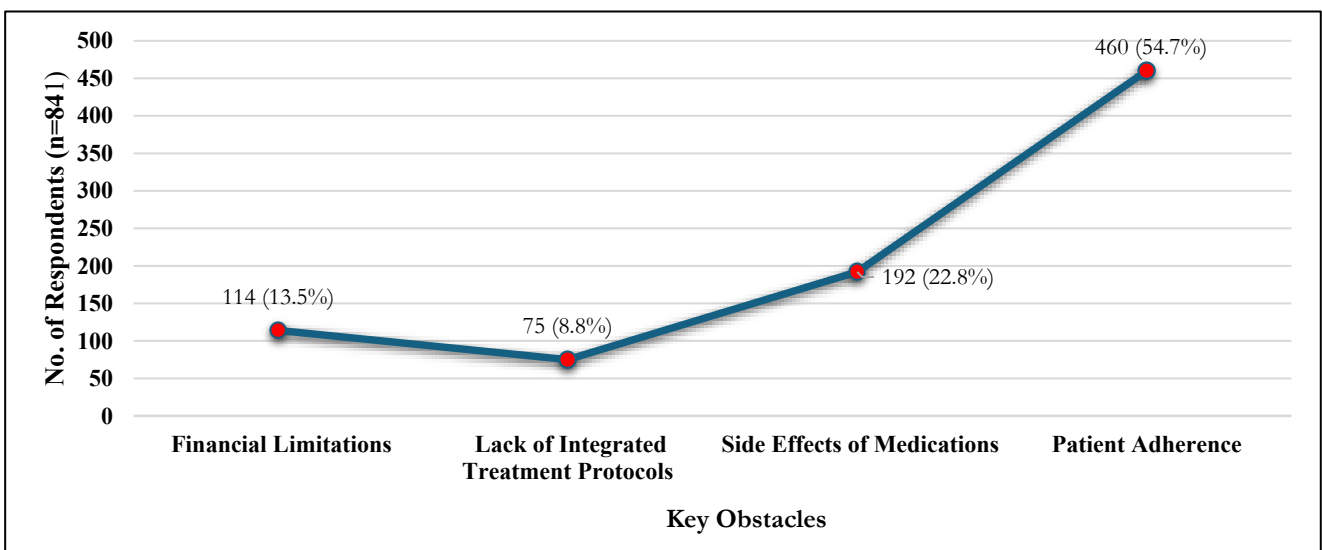


Figure 6: Comorbidity of hypertension and dyslipidemia: key obstacles in overall management.

DISCUSSION

This nationwide survey offers critical insights into the current practices, challenges, and perceptions of HCPs in India managing the dual challenge of hypertension and dyslipidemia. The findings reinforce existing knowledge while revealing real-world gaps in screening, adherence, and guideline applicability. A prominent trend observed was the frequent coexistence of hypertension and dyslipidemia, with most HCPs reporting that 10-30% of their hypertensive patients also presented with lipid abnormalities consistent with earlier studies demonstrating a high overlap between these two metabolic disorders.¹⁰ Interestingly, another 31.1% noted that this figure ranges between 20-30%, which is quite substantial. This relationship demonstrates the importance of routine lipid screening in patients with hypertension, because early detection and concurrent management of dyslipidemia can significantly reduce the risk of high cardiovascular events.¹¹ Hypertension is one of the most prevalent disorders in practice and is known to accelerate atherosclerotic progression with dyslipidemia when not treated adequately. Therefore, comprehensive management that includes regular lipid profiling should form a cornerstone of hypertension care.

On the other hand, approximately 18.9% observed that more than 30% of hypertensive patients have experienced dyslipidemia, while a smaller subset (9.7%) reported the prevalence to be less than 10%. This aligns with the findings of Borghi et al who highlighted the synergistic cardiovascular risks associated with this comorbidity due to overlapping pathophysiological mechanisms such as oxidative stress, endothelial dysfunction, and systemic inflammation.^{3,12}

Among dyslipidemic patients, 38.8% of HCPs reported that 20-30% were also diagnosed with hypertension. Another 37.9% indicated a slightly lower prevalence range of 10-20%, while 17.7% observed that more than 30% of their dyslipidemic patients had concurrent hypertension. Only 5.6% reported the comorbidity in fewer than 10% of cases. In terms of age distribution, the majority of HCPs (51.9%) identified the 45-60-year age group as most commonly affected by both conditions. Additionally, 38.5% noted a notable prevalence in the 30-45-year group, whereas fewer cases were observed in patients above 60 years (5.2%) and below 30 years (4.4%).

The age group most commonly affected was 45-60 years, a finding consistent with Desai et al who reported a high burden of cardiometabolic conditions among middle-aged Indian adults, driven largely by lifestyle choices, urbanization, and associated chronic diseases.¹³ Notably, 38.5% of healthcare professionals observed the prevalence of comorbidity among younger patients aged 30-45 years. In comparison, fewer cases were reported in those over 60 years (5.2%) and under 30 years (4.4%). Our data support the need for targeted interventions in this demographic to improve early risk identification and reduce long-term

cardiovascular burden. This demographic shift underscores the importance of initiating screening for both blood pressure and lipid abnormalities at younger ages, even in asymptomatic individuals.

Despite access to lipid profiling and diagnostic tools, early diagnosis remains suboptimal. HCPs cited limited follow-up, lack of symptoms, and insufficient screening guidelines as key barriers mirroring conclusions drawn by Varghese et al who emphasized that underdiagnosis and inadequate follow-up contribute significantly to poor hypertension control in India.¹⁴ Strengthening primary care systems and incorporating opportunistic screening strategies during outpatient visits may help close these diagnostic gaps.

A significant proportion of healthcare professionals (65.5%) indicated that patients often adhere to their prescribed medication regimens for managing both hypertension and dyslipidemia. Additionally, 13.5% reported very frequent adherence, while 18.6% observed that patients follow their treatment plans only occasionally. A smaller group (2.4%) noted rare adherence, underscoring that medication consistency remains a concern for certain patients. In terms of management challenges, the majority (54.7%) of HCPs identified poor adherence as the primary barrier. Medication side effects were cited as the second most common issue by 22.8% of respondents, followed by financial constraints (13.5%). Only 8.8% mentioned the absence of integrated treatment protocols, suggesting that adherence and affordability are more critical hurdles in effective disease management.

Almost half of the HCPs surveyed felt that existing clinical guidelines were sufficient, while others felt that they needed to be adapted to their context. This demonstrates that while there may be awareness of global guidelines, such as from the American college of cardiology (ACC) and the European society of cardiology (ESC), the variations in implementation in real-world scenarios often require local adaptation to the factors that influence the ability of patients to adhere to the recommendations, including local patients' beliefs, affordability and availability of clinical resources and clinical experience.¹⁵ Adherence to clinical guidelines can be supported through updates to clinical guidelines, simplified clinical decision algorithms, and education sessions through ongoing medical education initiatives suited to the Indian health system.

Regarding challenges in monitoring patients, 57.7% identified patient compliance with follow-up as the most common hurdle. Another 21.7% pointed to the availability of reliable monitoring tools, while 17.6% noted a lack of time for regular monitoring. Interpreting fluctuating readings was the least common challenge, reported by 3.0% of HCPs. Finally, when educating patients about monitoring their condition, in-person counseling sessions were deemed most effective by 57.1% of respondents. Digital tools and mobile apps were cited by 18.9%, written

materials and pamphlets by 17.6%, and group sessions or workshops by 6.2%. These findings highlight the importance of personalized education methods. The current survey highlights the urgent need for a unified, risk-based method to manage hypertension and dyslipidemia in India. Regular lipid testing for hypertensive patients, ongoing follow-up, and patient-centered education are crucial for effective prevention. With CVD increasing among the Indian population, collaboration among policymakers, healthcare providers, and public health organizations is vital for ensuring extensive screening and evidence-based care. Future research should examine the actual effects of these interventions on patient outcomes and healthcare utilization.

This survey is limited by its reliance on self-reported data, which may introduce bias. Additionally, it reflects the perspectives of HCPs in India and may not be generalizable to other healthcare systems or populations.

CONCLUSION

This survey underscores the urgent need for managing patients with comorbidity of hypertension and dyslipidemia. Despite good awareness among healthcare professionals, significant gaps remain in early detection, patient adherence, and care integration. Regular lipid profiling in hypertensive patients, the use of simplified combination treatments, and a focus on patient education are essential for improving long-term outcomes. Strengthening multidisciplinary collaboration and adapting existing clinical guidelines to local practice settings may enhance comprehensive risk reduction. Future initiatives should aim at using combined management strategies for combined hypertension and dyslipidemia in real-world settings and aimed to address cardio metabolic risk to elevate increasing burden of CVD in India.

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Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

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