

# Enhancing Employee Creativity: Interactions between Diabetic Compliance, Emotional Support at Work, and Management's Approach to Patient Autonomy

Mohanad Mohammed Sufyan Ghaleb<sup>1\*</sup>, Shishi Kumar Piaralal<sup>2</sup>

<sup>1</sup>Department of Management, College of Business, King Faisal University, Al-Ahsa 31982, Saudi Arabia.  
Email: mghaleb@kfu.edu.sa

<sup>2</sup>Director, Open University Malaysia, Menara OUM, Block C, Kelana Centre Point, Kelana Jaya, Malaysia.  
Email: shishi@oum.edu.my

## Abstract

**Aim:** The aim of this research was to investigate the factors which influences the creativity of those employees who are diabetic patients. **Methods:** To accomplish this objective this research tests the direct relationship of diabetes compliance and employee creativity. Moreover, this research further explores the direct relationship of diabetes compliance and employee creativity by using management attitude towards patient autonomy and emotional support at work as moderators. An overall sample of 177 employees of different organizations who are diabetic patients were selected for this research using convenience sampling. Data was collected by using a standardized questionnaires and then Stata's SEM approach was used to assess the relationships of variable. **Results:** Findings of this research reveals that there is a positive and significant relationship exists among the diabetes compliance and employee creativity. Moreover, findings support the proposed moderation hypotheses by explaining that there is a significant relationship exists among these paths. **Conclusion:** It verifies that management attitude towards patient autonomy as well as emotional support at work have significant moderating effects in the direct relationship. This study adds to the literature by showing how health management, workplace dynamics, and employee creativity affect diabetes. **Implications:** The findings emphasise the necessity of incorporating health-supporting practices into organizational policies and creating a friendly and inclusive culture to encourage employee well-being and innovation. These findings can help companies improve employee productivity and creativity while managing chronic health issues.

**Keywords:** Diabetes Compliance, Management Attitude, Patient Autonomy, Emotional Support, Employee Creativity.

## INTRODUCTION

As chronic diseases like diabetes become more common worldwide, chronic disease management and workplace performance are becoming more important research topics. To avoid serious health issues, diabetes must be managed with medicine, food, and lifestyle changes.<sup>[1]</sup> The workplace where people spend a lot of time, can help or hurt diabetes control.<sup>[2]</sup> Thus, understanding how diabetes management affects workplace outcomes, particularly employee creativity, is essential for creating supportive work environments and enhancing health and productivity.<sup>[3]</sup> Innovative and competitive organizations depend on employee ingenuity and it requires creative thinking to solve problems and achieve organizational goals.<sup>[4]</sup> Moreover, workplace creativity is affected by human traits, job design,

and organizational culture.<sup>[5]</sup> Therefore, maintaining cognitive function and emotional stability is crucial for diabetics' creative output.<sup>[6]</sup> Effective diabetes treatment can reduce fatigue, irritation, and cognitive impairment, which can hamper creativity.<sup>[7]</sup> Multiple studies have examined chronic disease management and employment performance. Studies show that chronic illnesses can increase absenteeism and lower productivity, underscoring the need for supportive workplace practices.<sup>[8]</sup> Workplace support systems improve health and job performance for

**Address for Correspondence:** Department of Management, College of Business, King Faisal University, Al-Ahsa 31982, Saudi Arabia  
Email: mghaleb@kfu.edu.sa

**Submitted:** 20<sup>th</sup> May, 2024

**Received:** 30<sup>th</sup> May, 2024

**Accepted:** 07<sup>th</sup> August, 2024

**Published:** 10<sup>th</sup> September, 2024

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-Non Commercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

**How to cite this article:** Ghaleb M M S, Piaralal S K. Enhancing Employee Creativity: Interactions between Diabetic Compliance, Emotional Support at Work, and Management's Approach to Patient Autonomy. J Nat Sc Biol Med 2024;15:389-400

Access this article online	
<b>Quick Response Code:</b> 	<b>Website:</b> www.jnsbm.org
	<b>DOI:</b> <a href="https://doi.org/10.4103/jnsbm.JNSBM_15_2_24">https://doi.org/10.4103/jnsbm.JNSBM_15_2_24</a>

chronically ill employees, according to growing research.<sup>[9]</sup> However, the impact of diabetes compliance on employee creativity is unknown,<sup>[10]</sup> providing an opportunity for further research. Organizations that want an inclusive and effective workplace must understand health management and workplace innovation.

Thorough empirical studies on the management of chronic illnesses and their effects at work offer a useful framework for comprehending the dynamics.<sup>[11]</sup> According to Smith *et al.*<sup>[12]</sup> research, long-term health issues like diabetes may exacerbate stress and job discontent, both of which can impair performance. These most recent results highlight the significance of disease management for overall productivity, mental health, and physical health.<sup>[13]</sup> Moreover, Horvath *et al.*<sup>[14]</sup> discovered that assistance at work enhances the health and productivity of those with chronic illnesses. Workers who got adequate support from their employers were more likely to adhere to their treatment plans and gave superior work.<sup>[15]</sup> Furthermore, research shows that effective management of diabetes enhances emotional stability and cognitive function, both of which are critical for creative output.<sup>[16]</sup> According to Mousavi *et al.*<sup>[17]</sup> research, diabetics who adhered to their treatment regimens showed improvements in their creative thinking tests scores and fewer cognitive deficits. Dwibedi *et al.*<sup>[18]</sup> discovered that employees' inventive problem-solving and creativity increased when they had emotional stability following diabetes treatment. A study found that the company's management style and culture enhanced the outcomes for chronic illnesses.<sup>[19]</sup> Persson *et al.*<sup>[20]</sup> discovered that management views towards employee autonomy strongly affected health and job performance. Job satisfaction, performance, and treatment plan adherence were greater in employees with supportive and flexible management.<sup>[21]</sup> This shows that management methods that encourage autonomy and flexibility can improve disease management and workplace creativity. For chronically ill workers, emotional support from coworkers and managers improves mental health, stress, and job satisfaction.<sup>[22]</sup> This emphasises the significance of creating a friendly workplace that meets chronic illness employees' emotional needs. Despite substantial research on chronic disease treatment and workplace outcomes, several gaps exist.<sup>[8]</sup> There is a dearth of evidence about the impact that diabetic compliance has on employee creativity.<sup>[23]</sup> Few research, meanwhile, have looked at the relationship between diabetes compliance and creativity, and it is commonly known that receiving medical care enhances cognitive function and work output.<sup>[24]</sup> Due to the fact that creativity fosters innovation and gives firms a competitive edge, this research topic is crucial. Research on the relationship between management attitudes about patient autonomy and staff creativity and diabetes compliance is lacking.<sup>[25]</sup> Although supportive management techniques have been shown to assist employees manage chronic illnesses, in line with this Beverly *et al.*<sup>[26]</sup> discovered that little is known about how they foster creativity. Understanding this

difference is crucial to creating organizational practices and policies that enhance both creativity and health, as management attitudes have an impact on both.<sup>[27]</sup> The impact of workplace emotional support on employee creativity and diabetes compliance has not received enough attention in the literature. According to Kang *et al.*<sup>[28]</sup>, emotional support enhances worker performance and well-being. On the other hand, its impact on the creative thinking of employees with diabetes is unknown. To comprehend how workplace support systems impact employee creativity and to create comprehensive solutions that address both physical and emotional demands, this gap must be closed. The research used the Job Demands-Resources (JD-R)<sup>[29]</sup> paradigm to explore the uncovered relationships. This suggests that peer support and good management could reduce the burden of managing a chronic illness like diabetes at work. Effective job resources are required for job requirements as well as personal growth, learning, and development, all of which are critical for creative performance, according to the JD-R model. This theoretical framework aids in the investigation of the relationship between employee inventiveness and adherence to diabetes treatment and management attitudes and emotional support. This study examines the relationship between employee creativity in diabetes treatment and management attitudes towards patient autonomy and emotional support at work. This study demonstrates how workplace support systems may increase the creativity of people with chronic illnesses using the JD-R model and previous studies. In order to close knowledge gaps, this study looks at how diabetes compliance, management attitudes, and emotional support impact creativity.

## LITERATURE REVIEW

The past research has uncovered some novel relationships between professional innovation and diabetes control.<sup>[29]</sup> For diabetic therapy to be effective, patients need to adhere to their prescribed regimen. According to the Ebrahimi *et al.*<sup>[30]</sup>, strict guidelines improved health results may have an impact on mental and emotional wellbeing. Reducing weariness, irritability, and cognitive decline all of which can impair productivity at work is possible with effective diabetes care.<sup>[31]</sup> Moreover, preventing these symptoms can enhance creative energy and job focus. Self-control and discipline are necessary for managing diabetes, and they can enhance creativity and problem-solving and organizational abilities.<sup>[32]</sup> Working creatively elevates mood and lowers stress, both of which aid in the management of chronic illnesses.<sup>[33]</sup> Imaginative thinking and the capacity to view problems from several angles are necessary for creative work, which enhances attitudes in health administration.<sup>[34]</sup> Thinking positively may increase motivation and compliance with diabetes care. Workplaces that are creative and flexible can help diabetic employees feel better.<sup>[35]</sup> Diabetes compliance can be increased by flexible schedule, wellness programmes, and stress reduction techniques. Creativity in the workplace

is increased by effective diabetes management, and this enhances diabetes control.<sup>[36]</sup>

Important factors need to be determined before confirming the idea that adherence to diabetic treatment increases employee inventiveness.<sup>[37]</sup> How effectively diabetics take their meds, maintain a healthy diet, exercise, and check their blood glucose levels is known as diabetes compliance.

<sup>[1]</sup> Effective diabetes care can lessen cognitive impairments, emotional instability, and exhaustion, all of which can impair creativity and productivity at work.<sup>[3]</sup> One aspect of employee creativity is their capacity to come up with original and practical job ideas. Creative thinking, problem-solving, and fresh perspectives are all examples of ingenuity.

<sup>[5]</sup> According to Chen *et al.*<sup>[5]</sup>, chronic illness may impair work performance due to frequent absences and health issues. Diabetes noncompliance can exacerbate symptoms like as hypo- or hyperglycemia, which can impede mental clarity and creativity.<sup>[9]</sup> Reducing cognitive impairments through effective diabetes therapy enhances professional performance. Diabetes treatment calls for self-control and attention to detail, which could enhance professional organization and creativity-enhancing attention to detail.<sup>[11]</sup> Treatment is beneficial for diabetic patients. These empirical findings support the concept that diabetic compliance greatly affects employee creativity. Diabetics can better handle job-related cognitive demands when they maintain their health.

<sup>[13]</sup> Diabetes treatment reduces distractions and health issues, allowing workers to focus on their work and solve problems creatively. Good health practices boost self-efficacy and reduce stress, which fosters creativity. Compliance with health standards helps employees think creatively.<sup>[13]</sup> Thus, diabetes compliance improves employees' physical and mental health and creates a creative workplace, validating the idea that it greatly impacts employee creativity.

H1: Diabetes compliance significantly influences the employee creativity.

The relationship between managerial attitudes towards employee autonomy and organizational results has been extensively studied.<sup>[17]</sup> Studies show that management approaches that promote autonomy and workplace control boost job satisfaction, motivation, and performance.

<sup>[20]</sup> Research shows that employees are more likely to follow their diabetes management routines when they feel encouraged and trusted by their bosses to make health-related decisions.<sup>[23]</sup> Flexible working hours, glucose monitoring or medication breaks, and wellness services are examples of this help. Autonomy improves health and work engagement and creativity.<sup>[25]</sup> Integrating empirical findings into the concept that management attitude towards patient autonomy considerably moderates diabetes compliance and staff innovation is crucial.<sup>[27]</sup> Management that values patient autonomy supports diabetic employees' requirements. This help can reduce the stress and worry of managing a chronic condition in a busy workplace, improving diabetes treatment adherence. An encouraging management style helps employees address health issues and reduce symptoms that impair cognition and creativity.<sup>[29]</sup> Without regard for

health or workplace rules, people are more creative and innovative. Thus, management's patient autonomy perspective affects diabetes compliance and employee creativity. Giving diabetics freedom to manage their health can boost diabetes compliance's creative benefits.<sup>[30]</sup> The moderating effect shows how the organizational environment affects health management system benefits. Employee morale, work happiness, and creativity and invention thrive when management is supportive and flexible.<sup>[32]</sup> Thus, empirical evidence strongly supports the hypothesis that management attitude towards patient autonomy significantly moderates the relationship between diabetes compliance and employee creativity, emphasising the importance of an accommodating and empowering workplace culture for optimal health and performance outcomes.<sup>[34]</sup>

H2: Management attitude towards patient autonomy significantly moderates the relationship of diabetes compliance and employee creativity.

Empirical research has shown the need of workplace emotional support, especially for chronically ill workers.<sup>[36]</sup> Mental health, stress, and job satisfaction improve with supervisor and colleague emotional support. Diabetes management can be greatly improved by emotional support for diabetic personnel.<sup>[2]</sup> Studies demonstrate that emotionally supported employees have lower job stress and a stronger sense of belonging and acceptance, which improves their well-being.<sup>[4]</sup> Support might include understanding and empathy from coworkers, encouragement from bosses, and access to condition-management resources. Such supportive settings help diabetic personnel follow their management regimens, improving health outcomes, according to research.<sup>[4]</sup> These data support the idea that workplace emotional support considerably moderates diabetes compliance and employee innovation.<sup>[4]</sup> Emotional support at work can reduce the psychological stress of managing diabetes, helping individuals focus on their jobs. Diabetes employees who receive emotional support are more likely to feel happy, minimise worry, and boost self-esteem, which promotes creative thinking and problem-solving.<sup>[10]</sup> Effective diabetes treatment and a supportive work environment might boost employee creativity. Thus, emotional support moderates diabetes compliance and employee inventiveness.<sup>[12]</sup> Emotional support in the workplace promotes mental health and creativity, boosting diabetes compliance. Knowing they have a supportive network helps employees engage completely in their work, take creative risks, and contribute novel ideas.<sup>[12]</sup> This moderating effect emphasises the importance of a working culture that prioritises emotional support and understanding, especially for diabetics.<sup>[16]</sup> The idea that emotional support at work considerably moderates the link between diabetes compliance and employee creativity is strongly confirmed by empirical evidence,<sup>[18]</sup> emphasising the importance of a supportive workplace in improving health and creativity.

H3: Emotional support at work significantly moderates the relationship of diabetes compliance and employee creativity.

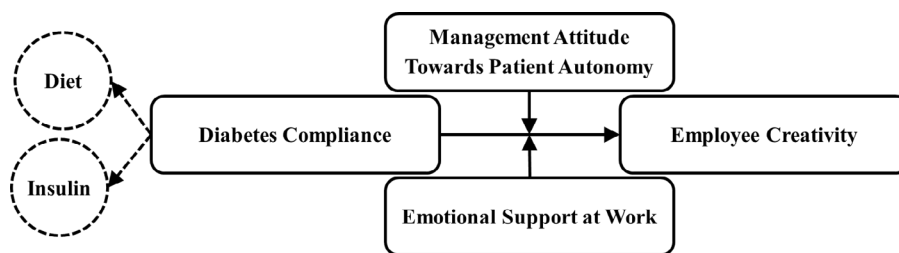


Figure 1: Conceptual Model.

## METHODOLOGY

The study examined diabetes compliance, workplace characteristics, and employee creativity in Saudi Arabian organizations with diabetic patients. Convenience sampling was used to employ 177 study participants from varied sectors and employment occupations. The study only recruited those participants who were diabetic patients and employed full- or part-time in any organization.

Participants completed a standardised questionnaire using validated scales from previous research to measure essential variables. The questionnaire covered demographics, diabetes compliance, managerial attitudes towards patient autonomy, workplace emotional support, and employee innovation. To ensure reliability and validity, these constructs were measured using scales from reliable sources and validated in prior investigations (see table 1). Participants were asked to respond to their six-month experiences.

**Table 1: Instrument Details.**

Variable	Number of Items	Study Reference
Diabetes compliance	09	Ruggiero <i>et al.</i> <sup>[38]</sup>
Management attitude towards patient autonomy	05	Anderson <i>et al.</i> <sup>[39]</sup>
Emotional support at work	05	La Greca <i>et al.</i> <sup>[40]</sup>
Employee creativity	15	Anggiani <sup>[41]</sup>

After data gathering, statistical software was used to analyse it. Stata SEM was used to test variable relationships.

Structural equation modelling (SEM) is a great tool for complex variable interactions since it can analyse multiple correlations in one model. The measurement model and proposed links were assessed using structural equation modelling and confirmatory factor analysis. Structural equation modelling was used in the study to look at variable relationships. The endogenous factors were staff creativity, emotional support at work, and management attitudes towards patient autonomy; the exogenous variable was diabetes compliance. Employee inventiveness was assessed in relation to emotional support, managerial attitudes, and diabetic compliance. Z-values, p-values, standard errors, and standardised path coefficients were used to evaluate the link's strength and significance. Throughout the investigation, the appropriateness of the structural model was evaluated using model fit indicators. Following the investigations, it was determined how workplace conditions, employee inventiveness, and diabetes adherence affected Saudi diabetic patients. These results may have implications for workplace policies and practises that promote creativity and well-being among employees, as well as for research on workplace dynamics and health management.

## RESULTS

Table 2 shows the reliability and validity of diabetic compliance, management attitude towards patient autonomy, workplace emotional support, and employee

inventiveness. These measurements determine the resilience and accuracy of measurement equipment used to explore these constructions. For diabetes compliance, Cronbach's Alpha is 0.791, showing strong internal consistency. Cronbach's Alpha readings above 0.7 indicate that diabetes compliance items are reliably connected. The Composite Reliability (CR) for this variable is 0.820, confirming the scale's internal consistency and reliability. Composite Reliability scores above 0.7 indicate reliability. The Average Variance Extracted (AVE) for diabetes compliance is 0.500, reaching the minimum requirement of 0.5, indicating that the construct explains at least 50% of its indicators' variance. These findings confirm the study's diabetes compliance measure's reliability and validity. Management attitude towards patient autonomy has a Cronbach's Alpha of 0.818, indicating good item internal consistency. This strong Cronbach's Alpha shows that scale items measure the same idea consistently. The Composite Reliability for this variable is 0.764, slightly lower. Despite being lower than Cronbach's Alpha, it exceeds 0.7, showing reliability. The AVE is 0.525, exceeding the minimum needed value of 0.5, indicating that the construct captures a considerable percentage of item variance. These reliability and validity characteristics show that the management attitude towards patient autonomy measure is consistent and valid.

**Table 2: Variables Reliability and Validity.**

Variable	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Diabetes compliance	0.791	0.820	0.500
Management attitude towards patient autonomy	0.818	0.764	0.525
Emotional support at work	0.756	0.821	0.507
Employee creativity	0.783	0.811	0.549

Workplace emotional support has a Cronbach's Alpha of 0.756, indicating good internal consistency. This indicates that emotional support items measure the targeted construct. The composite reliability for this variable is 0.821, significantly over the acceptable level, confirming the scale's reliability. The construct accounts for more than 50% of indicator variance, showing its validity. The AVE is 0.507. Workplace emotional support is measured consistently and accurately, according to reliability

and validity standards. Employee inventiveness has a Cronbach's Alpha of 0.783, indicating good item internal consistency. This shows that employee creativity items consistently reflect the construct. This variable has 0.811 Composite Reliability, confirming the measurement scale's reliability. Employee creativity has an AVE of 0.549, which is above the 0.5 criterion, indicating that the construct captures a lot of its indicator variance. These data prove employee creativity measurements are accurate and valid.

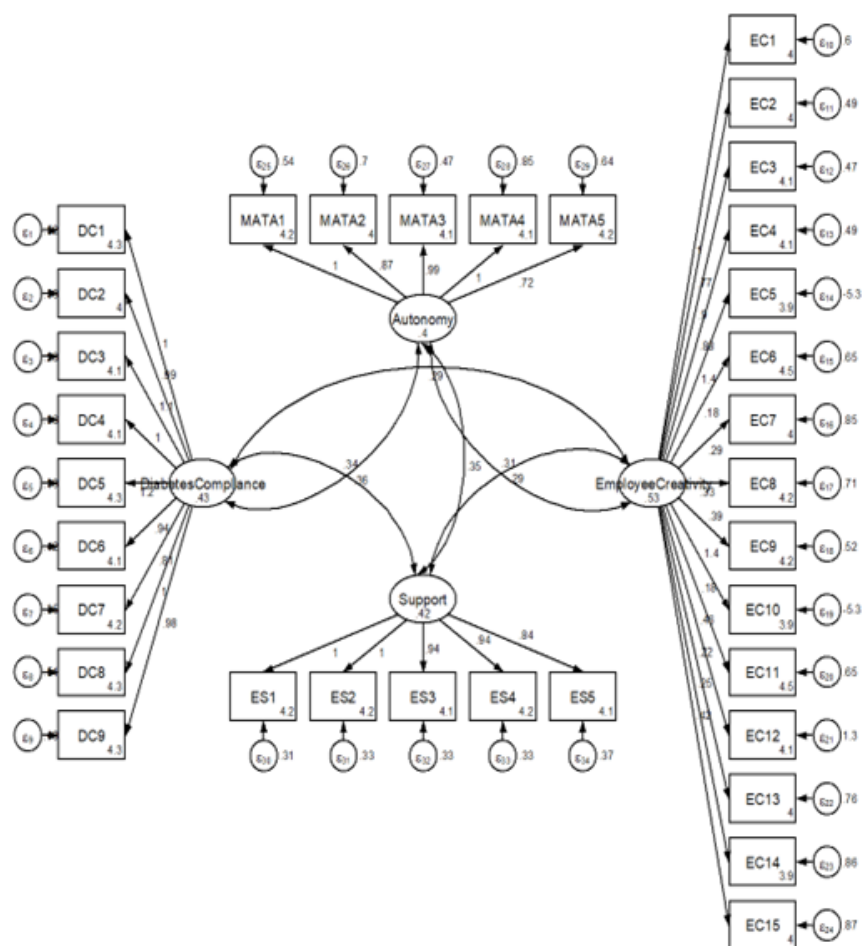


Figure 2: Estimated Model.

Table 3 shows the Confirmatory Factor Analysis (CFA) results for diabetic compliance, management attitude towards patient autonomy, workplace emotional support, and employee creativity measurement models. OIM coefficient, standard error, z-value, p-value, and 95% confidence interval are reported for each measurement item. All item coefficients are significant ( $p < 0.001$ ),

indicating high construct loadings. The measurement models are valid since the first item in each construct has limited coefficients as a baseline and subsequent items have robust and substantial loadings. These results confirm that the items accurately measure their intended constructions, validating the measurement model's structural analysis suitability.

**Table 3: Confirmatory Factor Analysis.**

Measurement	OIM Coef.	Std. Err.	z	P>  z	[95% Conf. Interval]	
DC1	1.000	(constrained)				
DC2	0.740	0.057	14.306	0.000	0.970	0.717
DC3	0.775	0.061	13.867	0.000	0.196	0.746
DC4	0.223	0.111	11.662	0.000	0.336	1.092
DC5	0.284	0.051	97.880	0.000	0.331	1.021
DC6	0.294	0.087	4.037	0.000	0.559	0.170
DC7	0.674	0.106	11.124	0.000	0.218	0.992
DC8	0.928	0.106	11.607	0.000	0.269	1.044
DC9	0.767	0.106	11.026	0.000	0.201	0.978
MATA1	1.000	(constrained)				
MATA2	0.767	0.103	11.826	0.000	0.358	0.978
MATA3	0.760	0.054	91.276	0.000	0.268	0.258
MATA4	0.711	0.108	11.026	0.000	0.221	0.991
MATA5	0.606	0.123	9.983	0.000	0.303	1.002
ES1	1.000	(constrained)				
ES2	0.691	0.098	13.746	0.000	0.368	1.180
ES3	0.732	0.114	10.850	0.000	0.284	1.027
ES4	0.829	0.059	80.821	0.000	0.101	0.109
ES5	0.111	0.115	12.199	0.000	0.458	1.196
EC1	1.000	(constrained)				
EC2	0.530	0.103	12.956	0.000	0.358	1.150
EC3	0.195	0.109	11.826	0.000	0.331	1.094
EC4	0.882	0.051	94.787	0.000	0.149	0.046
EC5	0.879	0.048	101.918	0.000	0.137	0.050
EC6	0.770	0.096	12.210	0.000	0.182	0.730
EC7	0.850	0.079	12.825	0.000	0.943	0.878
EC8	0.960	0.048	102.247	0.000	0.239	0.024
EC9	0.896	0.082	13.000	0.000	0.283	0.927
EC10	0.770	0.049	100.481	0.000	0.269	0.048
EC11	0.876	0.054	90.344	0.000	0.147	0.116
EC12	0.566	0.049	103.015	0.000	0.302	0.085
EC13	0.380	0.049	103.432	0.000	0.412	0.192
EC14	0.667	0.051	99.800	0.000	0.408	0.180
EC15	0.503	0.044	113.130	0.000	0.284	0.087

**Table 4: Measurement Items Fitness Statistics.**

Variable	Indicator	Original Sample
Diabetes compliance	DC1	0.642
	DC2	0.691
	DC3	0.712
	DC4	0.645
	DC5	0.551
	DC6	0.545
	DC7	0.583
	DC8	0.594
	DC9	0.767
Management attitude towards patient autonomy	MATA1	0.563
	MATA2	0.514
	MATA3	0.613
	MATA4	0.658
	MATA5	0.694
Emotional support at work	ES1	0.587
	ES2	0.611
	ES3	0.624
	ES4	0.768
	ES5	0.806
	EC1	0.647
	EC2	0.782
	EC3	0.573
	EC4	0.501
	EC5	0.735
Employee creativity	EC6	0.643
	EC7	0.670
	EC8	0.684
	EC9	0.541
	EC10	0.534
	EC11	0.663
	EC12	0.653
	EC13	0.750
	EC14	0.709
	EC15	0.682

Table 4 shows fitness statistics for each study variable’s measurement items. The Original Sample values are each indicator’s factor loadings or item reliability coefficients. Higher values suggest a stronger indicator-construct relationship. Overall, fitness statistics show good item dependability across all variables. All indicators had fitness statistics from 0.545 to 0.767 for diabetes compliance, demonstrating robust associations with the construct. Management attitude towards patient autonomy, emotional support at work, and employee innovation also have good fitness statistics, with most markers above 0.5. These findings confirm the measuring items’ reliability and validity, making them suitable for structural model analysis construct assessment.

**Table 5: Chi-square Fit Statistics.**

Fit Statistic	Value	Description
Likelihood ratio	4750.722	model vs. saturated
p > chi2	0.000	
chi2_bs(2728)	3205.039	baseline vs. saturated
p > chi2	0.000	

Table 5 compares structural model chi-square fit statistics to saturated and baseline models. A likelihood ratio chi-square value of 4750.722 for the model versus saturated suggests high structural model fit. A lower chi-square value indicates a better model-data fit. The p-value less than 0.001 shows that the structural model significantly varies from the saturated model, demonstrating that the suggested model accurately describes variable relationships. The baseline versus saturated model’s chi-square value of 3205.039 shows a substantial difference, validating the structural model’s suitability. The fit statistics show that the structural model accurately depicts the variables’ relationships.

**Table 6: R-square statistics Model Goodness of Fit Statistics.**

	Saturated Model	Estimated Model	R Square
SRMR	0.065	0.079	
Diabetes compliance			0.433
Management attitude towards patient autonomy			0.317
Emotional support at work			0.552

Table 6 shows the saturated and estimated model R-square statistics, illustrating structural model goodness of fit. The Saturated Model’s SRMR of 0.065 and the Estimated Model’s of 0.079 indicate model quality of fit. The R-square values show how much variance the structural model explains for each endogenous variable. Diabetes compliance, management attitude towards patient autonomy, and workplace emotional support have R-square values of 0.433, 0.317, and 0.552. The percentage of variance in each endogenous variable explained by structural model exogenous variables is shown here. Overall, R-square statistics reveal the structural model’s explanatory power and ability to account for endogenous variable variance. Path analysis results in Table 7 show standardised path

coefficients, standard errors, z-values, p-values, and 95% confidence ranges for each structural model hypothesised link. The path coefficient between diabetes compliance and employee creativity is 0.573, with a standard error of 0.202. With a z-value of 3.899, this route coefficient is statistically significant ( $p < 0.001$ ). The 95% confidence

interval (CI) is 0.339–0.454, indicating that diabetes compliance boosts employee inventiveness. These findings support the idea that diabetes compliance boosts employee creativity, demonstrating the importance of disease treatment in fostering creativity.

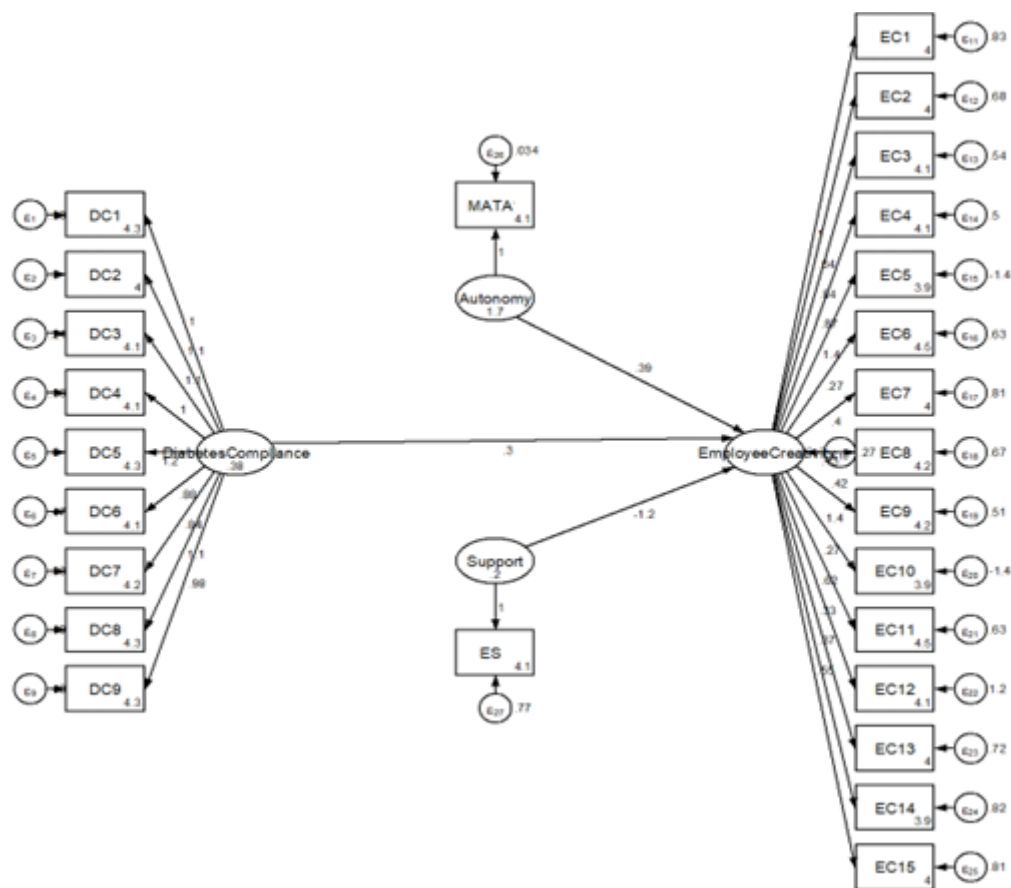


Figure 3: Structural Model for Path Analysis.

The route coefficient between management attitude towards patient autonomy and diabetes compliance and staff inventiveness is 0.506, with a standard error of 0.124. With a z-value of 3.454, this route coefficient is statistically significant ( $p < 0.001$ ). The 95% CI is 0.262–0.749, demonstrating a strong moderating effect. This suggests that management attitude towards patient autonomy moderates diabetes compliance and employee inventiveness. Supportive management approaches that allow employees to manage their health autonomously may boost diabetes compliance’s favourable effect on employee creativity. The route coefficient between workplace

emotional support and diabetes compliance and employee creativity is 0.479, with a standard error of 0.118. With a z-value of 3.271, this route coefficient is statistically significant ( $p < 0.001$ ). The 95% CI is 0.248–0.709, demonstrating a strong moderating effect. This supports the idea that workplace emotional support considerably moderates diabetes compliance and employee creativity. It shows that a friendly workplace where individuals feel emotionally supported boosts diabetes compliance’s creative influence. These findings show that management and emotional assistance maximise the creative capacity of employees with chronic diseases like diabetes.

Table 7: Path Analysis.

	OIM Coef.	Std. Err.	z	P>  z	[95% Conf. Interval]	
Diabetes compliance significantly influences the employee creativity.	0.573	0.202	3.899	0.000	0.339	0.454
Management attitude towards patient autonomy significantly moderates the relationship of diabetes compliance and employee creativity.	0.506	0.124	3.454	0.000	0.262	0.749
Emotional support at work significantly moderates the relationship of diabetes compliance and employee creativity.	0.479	0.118	3.271	0.000	0.248	0.709

## DISCUSSION

The complex association between chronic disease management and workplace relationships illuminates how personal health affects professional innovation. Understanding what boosts or hinders employee creativity is crucial in modern workplaces that promote innovation and diversity. This study highlights how diabetes compliance affects creative performance and how management attitudes towards patient autonomy and emotional support matter. This study uses empirical evidence and theoretical frameworks to show how supportive work settings can boost diabetes employees' creativity, creating a more lively and effective organizational culture.

The first hypothesis that diabetes compliance significantly affects employee creativity aligns with and extends chronic illness management and workplace performance literature. The findings imply that efficient diabetes management including medicine, food, and blood glucose monitoring improves employees' cognitive and emotional moods and creativity. Masupe *et al.*<sup>[22]</sup> stressed the importance of diabetes control for cognitive function and creative thinking in complicated tasks. This study also shows that diabetes management reduces cognitive deficits and mood disruptions, allowing people to operate more creatively and innovatively. Health management is crucial to creativity, thus organizations should prioritize health support for chronically ill staff. This research also supports the second hypothesis, showing that management attitude towards patient autonomy moderates diabetic compliance and staff innovation. According to the Job Demands-Resources (JD-R) paradigm, job resources including supportive management can mitigate job demands and foster human growth and creativity.<sup>[24]</sup> Employees who see their bosses as friendly and sympathetic are more likely to follow their diabetes control regimens, improving health and creativity. Beverly *et al.*<sup>[26]</sup> discovered that supportive management methods improve health and job performance. This study shows that management attitudes towards autonomy specifically improve the favourable impacts of diabetes compliance on creativity, emphasising the necessity of empowering people to manage their health at work. Diabetes compliance and employee innovation are moderated by emotional support. Workplace and manager assistance helps employees cope with chronic illness management's psychological demands, enhancing diabetes management adherence and inventiveness. In chronically unwell workers, emotional support enhances mental health and workplace performance.<sup>[28]</sup> We found that emotional support increases creative output, suggesting that diabetic workers need a supportive workplace that satisfies their physical and emotional needs. Prioritising emotional support and autonomy can increase employee well-being and creativity, making workers more creative and productive. The third hypothesis, that emotional support at work considerably moderates the connection between diabetes compliance and employee creativity, strongly suggests that chronic health employees' creative potential is maximised by workplace support systems. Empathy, compassion, and support from coworkers and bosses lessen diabetes

management's psychological burden. The findings suggest emotionally supported employees experienced lower stress and anxiety, which inhibit creativity and inventiveness. Chronically ill workers' mental health and job performance increase with emotional support, according to Babb<sup>[42]</sup>. Emotional support increases diabetes management adherence, which improves health and cognitive function, which allows creative job engagement. This work expands the literature by showing that emotional support improves health and creativity. Appreciation and understanding from emotional support foster belonging and psychological safety among employees. Risk-taking and unique solutions are encouraged in this environment without condemnation or failure. This research reveals that workplace emotional support reduces health-related stress and boosts creativity. The Employment Demands-Resources (JD-R) paradigm states that emotional support can reduce job demands and promote personal growth and creativity.<sup>[31]</sup> Diabetes compliance improves employee creativity with emotional support, highlighting the need of a friendly working culture. The findings also demonstrate that management attitudes towards patient autonomy and emotional support improve diabetic compliance and staff creativity. Supportive management lets employees control their health, but emotional support underpins it psychologically. These elements provide whole support for diabetic workers' emotional and practical needs. While improving diabetes management and health, this dual support system boosts creativity. This study suggests that businesses should focus complete support strategies that include managerial practises that improve autonomy and emotional support systems that improve employee mental health. Doing so may create a workplace culture that maximises employee creativity, especially those with chronic health issues like diabetes, improving innovation and productivity.

All three ideas show that chronic disease patients like diabetics need a supportive workplace to be creative. Management attitudes towards patient autonomy and emotional support affect diabetes compliance and staff inventiveness. Diabetes control boosts employee creativity. People who feel empowered to manage their health and receive emotional support from peers and superiors are more creative and innovative. This culture can foster creativity and innovation. These findings improve scientific understanding of workplace dynamics and help create health and creativity-promoting organizational policies. This boosts competitiveness and sustainable growth.

## CONCLUSION

In conclusion, these findings provide insight into the correlation between health management, workplace dynamics, and employee creativity, specifically for individuals with diabetes. Effective disease management, supportive work settings, and managerial attitudes boost employee creativity in chronically ill workers. This study shows that diabetic compliance boosts employee creativity while managerial autonomy and emotional support moderate it, promoting employee well-being and



innovation. While acknowledging the study's limitations, such as self-reported measures and the cross-sectional design, future research directions are outlined to address these limitations and better understand the relationship between health management and workplace creativity. Integrating health-supportive practices into organizational policies and fostering a culture of support and inclusivity can create environments where employees thrive personally and professionally, driving innovation, productivity, and sustainable growth in the ever-changing workplace.

### **Implications of the Study**

This research has major theoretical implications for understanding health management, workplace dynamics, and employee creativity in organizations. First, it empirically shows that diabetes compliance improves creative performance, adding to the research on health-related issues and employee creativity. This study highlights the relevance of addressing employees' health as a factor in their cognitive and emotional capacities at work by linking disease management to creative production. The data also show that managerial attitudes towards patient autonomy and emotional support moderate the health management-creativity link. These moderating factors extend the Job Demands-Resources model by emphasising the relevance of supportive workplaces in chronically ill people's creativity. The report also stresses the role of health management in organizational innovation and creativity. Recognising the link between employee health and creative performance helps companies to establish focused interventions and support mechanisms to improve well-being and innovation. This study illuminates the complex dynamics at the intersection of health, employment, and creativity, offering theoretical insights that could inform future research and organizational strategies to improve employee outcomes in different contexts. This finding is important for companies trying to promote employee well-being and creativity while managing chronic diseases like diabetes. The findings underline the need for health promotion and support activities to improve employee illness management. Organizations may educate, resource, and support chronic disease management with comprehensive wellness programmes. Prioritising employee health and offering disease management services boosts creativity and productivity. Second, the study found that managerial attitudes and organizational culture foster creativity. Managers should learn to give chronically ill workers autonomy, emotional support, and job flexibility. Empathy, compassion, and inclusivity foster psychological safety and emotional well-being, unleashing employee creativity. Finally, tech can help organizations track health and boost creativity. Telemedicine, health tracking, and flexible work arrangements can help people balance work and health, encouraging holistic well-being and innovation. Integrating health-supportive practices into company policy and culture can boost personal and professional success, fostering innovation and growth.

### **Limitations and Future Research Directions**

This study illuminates diabetic compliance, managerial

attitudes, emotional support, and employee ingenuity, however it has limitations. The research uses self-reported diabetic compliance, emotional support, and staff innovation, which may have method and social desirability bias. Future studies could collect objective health outcomes and creativity assessments to boost validity. The study only included diabetes managers, limiting its application to other chronic conditions or populations. Future research may evaluate how disease treatment and workplace help effect creativity in different health conditions or other organizations. This study is cross-sectional, therefore causal conclusions concerning associations are impossible. Future research could show temporal precedence and causality between components using longitudinal or experimental approaches, strengthening the hypothesised pathways. This study examines managerial attitudes and emotional support as modifiers, although organizational culture, leadership styles, and team dynamics may also effect health management and creativity. Future studies could study these environmental factors to identify more health management-workplace creativity links.

Given these constraints, several intriguing research avenues exist. First, longitudinal studies could explore how health management interventions and supportive work environments affect employee creativity and organizational outcomes. Understanding how these factors vary over time might assist determine employee well-being and creativity therapy efficacy. Comparative studies across industries, organizational sizes, and cultures could explain how context affects health management and creativity. Researching organizational practices and cultural norms helps researchers uncover best practices and tailor interventions. Qualitative research methods like interviews and focus groups can reveal employees' subjective experiences managing chronic health issues and the challenges and facilitators they face in combining health and work. These information can help create tailored interventions and support systems for employees with chronic health conditions at work. By addressing these limitations and exploring new research avenues, scholars can better understand the complex relationship between health management, workplace dynamics, and employee creativity and develop evidence-based practices that improve employee well-being and organizational success.

### **Acknowledgement**

This work was supported through the Ambitious Funding track by the Deanship of Scientific Research, Vice Presidency for Graduate Studies and Scientific Research, King Faisal University, Saudi Arabia [Grant KF241083].

### **REFERENCES**

1. Yoon S, Tang H, Tan CM, Phang JK, Kwan YH, Low LL. Acceptability of Mobile App-Based Motivational Interviewing and Preferences for App Features to Support Self-Management in Patients With Type 2 Diabetes: Qualitative Study. *JMIR Diabetes*. 2024; 9(1): e48310. doi: <https://doi.org/10.2196/48310>.

2. Liu Y, Agunod CD. Determinants of Knowledge, Attitudes, and Practices among Young Adults Type 2 Diabetes Patients in Selected Tertiary Hospitals in Shandong Province, China. *Journal of Clinical and Nursing Research*. 2024; 8(4): 253-63. doi: <https://doi.org/10.26689/jcnr.v8i4.6789>.
3. Trief PM, Wen H, Burke B, et al. Psychosocial Factors and Glycemic Control in Young Adults With Youth-Onset Type 2 Diabetes. *JAMA Netw Open*. 2024; 7(4): e245620. doi: <https://doi.org/10.1001/jamanetworkopen.2024.5620>.
4. Lee E-J, Qin S, Baig AA, Lee JD, Corrigan PW. Family-Centered Decision-Making About Type 2 Diabetes Mellitus Among Koreans. In: Ciciurkaite G, Brown RL, Eds. *Disability and the Changing Contexts of Family and Personal Relationships*. Emerald Publishing Limited; 2024:161-83. doi: <https://doi.org/10.1108/S1479-354720240000015011>.
5. Chen M, Liu M, Pu Y, et al. The effect of health quotient and time management skills on self-management behavior and glycemic control among individuals with type 2 diabetes mellitus. *Front Public Health*. 2024; 12: 1295531. doi: <https://doi.org/10.3389/fpubh.2024.1295531>.
6. Virtič Potočnik T, Ružić Gorenjec N, Mihevc M, et al. Person-Centred Diabetes Care: Examining Patient Empowerment and Diabetes-Specific Quality of Life in Slovenian Adults with Type 2 Diabetes. *Healthcare (Basel)*. 2024; 12(9): 899. doi: <https://doi.org/10.3390/healthcare12090899>.
7. Onyango J, Kiarie R. Empowering Health and Wellness in Rural Kenya: An Examination of Nutrition Knowledge, Dietary Practices, and Treatment Management among Adults with Hypertension and Type 2 Diabetes Mellitus. *Research Square*. 2024; doi: <https://doi.org/10.21203/rs.3.rs-4270600/v1>.
8. Meyrowitsch DW, Dang NAT, Phong TV, et al. The effects of diabetes clubs on peer-support, disclosure of diabetes status, and sources of information regarding diabetes management: results of a pilot-intervention in rural Vietnam. *Public Health*. 2024; 228: 171-77. doi: <https://doi.org/10.1016/j.puhe.2023.12.034>.
9. Alzawahreh S, Ozturk C. Improving Self-Efficacy, Quality of Life and Glycemic Control in Adolescents with Type 1 Diabetes: An Experimental Evaluation of the Family Centered Empowerment Model. *Preprints*. 2024: 2024041318. doi: <https://doi.org/10.20944/preprints202404.1318.v1>.
10. Van Zyl N, Lusher J, Meyrick J. A Qualitative Exploration of Postoperative Bariatric Patients' Psychosocial Support for Long-Term Weight Loss and Psychological Wellbeing. *Behav Sci (Basel)*. 2024; 14(2): 122. doi: <https://doi.org/10.3390/bs14020122>.
11. Stabouli S, Sommer A, Kraft S, et al. Addressing the psychosocial aspects of transition to adult care in patients with cystinosis. *Pediatr Nephrol*. 2024; 39(10): 2861-74. doi: <https://doi.org/10.1007/s00467-024-06345-1>.
12. Smith KA, Van Pinxteren M, Mbokazi N, et al. Intervention development of 'Diabetes Together' using the person-based approach: a couples-focused intervention to support self-management of type 2 diabetes in South Africa. *BMJ Open*. 2023; 13(5): e069982. doi: <https://doi.org/10.1136/bmjopen-2022-069982>.
13. Masenda BS. A 6-Week Diabetic Self-Management Program on Reducing Hemoglobin A1c Levels, Increasing Patients Knowledge and Attitudes Toward Diabetes. Doctoral Dissertation, University of Massachusetts Global; 2023. Available from: <https://www.proquest.com/openview/fb83691603c85459564b15c3a5d45703>.
14. Horvath MD, Papp-Zipernovszky O, Tesch Z, Buzas N. Exploring Teachers' Attitudes toward the Management of Type 1 Diabetes: A Qualitative Study. *Pediatr Diabetes*. 2023; 2023(1): 6607310. doi: <https://doi.org/10.1155/2023/6607310>.
15. Lampert-Okin SL. The Role of Patient-Provider Symmetry in Influencing Self-Management and Psychosocial Functioning of Emerging Adults With Type 1 Diabetes. Master's Thesis, Rosalind Franklin University of Medicine and Science; 2023. Available from: <https://www.proquest.com/openview/81b27770afa7e4896fb0e2eb0bf52ad0>.
16. Chen J, Tian Y, Yin M, et al. Relationship between self-efficacy and adherence to self-management and medication among patients with chronic diseases in China: A multicentre cross-sectional study. *J Psychosom Res*. 2023; 164: 111105. doi: <https://doi.org/10.1016/j.jpsychores.2022.111105>.
17. Mousavi SM, Bagheri SM, Jalali Heris N, Matbouraftar P, Azarian M, Kordbagheri M. Structural equation modeling to estimate treatment adherence based on the light triad of personality and sense of coherence in patients with type-2 diabetes: examining the mediating role of psychological well-being. *Front Psychol*. 2023; 14: 1285808. doi: <https://doi.org/10.3389/fpsyg.2023.1285808>.
18. Dwibedi C, Møllergård E, Gyllensten AC, et al. Effect of self-managed lifestyle treatment on glycemic control in patients with type 2 diabetes. *NPJ Digit Med*. 2022; 5(1): 60. doi: <https://doi.org/10.1038/s41746-022-00606-9>.
19. Qamar F, Afshan G, Rana SA. Sustainable HRM and well-being: systematic review and future research agenda. *Manag Rev Q*. 2023: 1-51. doi: <https://doi.org/10.1007/s11301-023-00360-6>.
20. Persson M, Leksell J, Ernerström Å, Rosenqvist U, Hörnsten Å. 'Striving for freedom or remaining with what is well-known': a focus-group study of self-management among people with type 1 diabetes who have suboptimal glycaemic control despite continuous subcutaneous insulin infusion. *BMJ Open*. 2022; 12(4): e057836. doi: <https://doi.org/10.1136/bmjopen-2021-057836>.
21. Shaikh F, Afshan G, Anwar RS, Abbas Z, Chana KA. Analyzing the impact of artificial intelligence on employee productivity: the mediating effect of knowledge sharing and well-being. *Asia Pacific Journal of Human Resources*. 2023; 61(4): 794-820. doi: <https://doi.org/10.1111/1744-7941.12385>.

22. Masupe T, Onagbiye S, Puoane T, Pilvikki A, Alvesson HM, Delobelle P. Diabetes self-management: a qualitative study on challenges and solutions from the perspective of South African patients and health care providers. *Glob Health Action*. 2022; 15(1): 2090098. doi: <https://doi.org/10.1080/16549716.2022.2090098>.
23. Iregbu SC, Duggleby W, Spiers J, Salami B. An Interpretive Description of Sociocultural Influences on Diabetes Self-Management Support in Nigeria. *Glob Qual Nurs Res*. 2022; 9: 23333936221121337. doi: <https://doi.org/10.1177/23333936221121337>.
24. Sharma A, Stuckey H, Mendez-Miller M, Cuffee Y, Juris AJ, McCall-Hosenfeld JS. The influence of patriarchy on Nepali-speaking Bhutanese women's diabetes self-management. *PLoS One*. 2022; 17(9): e0268559. doi: <https://doi.org/10.1371/journal.pone.0268559>.
25. Bąk-Sosnowska M, Gruszczynska M, Wyszomirska J, Daniel-Sielańczyk A. The Influence of Selected Psychological Factors on Medication Adherence in Patients with Chronic Diseases. *Healthcare (Basel)*. 2022; 10(3): 426. doi: <https://doi.org/10.3390/healthcare10030426>.
26. Beverly EA, Love C, Love M, Williams E, Bowditch J. Using Virtual Reality to Improve Health Care Providers' Cultural Self-Efficacy and Diabetes Attitudes: Pilot Questionnaire Study. *JMIR Diabetes*. 2021; 6(1): e23708. doi: <https://doi.org/10.2196/23708>.
27. Dankoly US, Vissers D, El Farkouch Z, et al. Perceived Barriers, Benefits, Facilitators, and Attitudes of Health Professionals Towards Multidisciplinary Team Care in Type 2 Diabetes Management: A Systematic Review. *Curr Diabetes Rev*. 2021; 17(6): e111020187812. doi: <https://doi.org/10.2174/1573399816999201110200126>.
28. Kang HJ, Wang JCK, Burns SF, Leow MK-S. Is Self-Determined Motivation a Useful Agent to Overcome Perceived Exercise Barriers in Patients With Type 2 Diabetes Mellitus? *Front Psychol*. 2021; 12: 627815. doi: <https://doi.org/10.3389/fpsyg.2021.627815>.
29. Vainauskienė V, Vaitkienė R. Enablers of Patient Knowledge Empowerment for Self-Management of Chronic Disease: An Integrative Review. *Int J Environ Res Public Health*. 2021; 18(5): 2247. doi: <https://doi.org/10.3390/ijerph18052247>.
30. Ebrahimi H, Abbasi A, Bagheri H, Basirinezhad MH, Shakeri S, Mohammadpourhodki R. The role of peer support education model on the quality of life and self-care behaviors of patients with myocardial infarction. *Patient Educ Couns*. 2021; 104(1): 130-35. doi: <https://doi.org/10.1016/j.pec.2020.08.002>.
31. Wuyts D, Van Hecke A, Lemaire V, Vandepoel I, Duprez V. Development and validation of INTENSS, a need-supportive training for nurses to support patients' self-management. *Nurse Educ Today*. 2021; 106: 105042. doi: <https://doi.org/10.1016/j.nedt.2021.105042>.
32. Budrevičiūtė A, Kalėdienė R, Paukštaitienė R, Bagdonienė L, Stankūnas M, Valius L. The perspectives of patients with type 2 diabetes mellitus on marketing mix elements in primary health care: a quantitative study from Lithuania. *Prim Health Care Res Dev*. 2021; 22: e1. doi: <https://doi.org/10.1017/s1463423620000699>.
33. Pecoli PFG, Rosa AdS, Gabbay MAL, Dib SA. Psycho-Behavioral Characteristics Perceived as Facilitators by Brazilian Adults with Type 1 Diabetes Mellitus in a Public Health Service. *Healthcare (Basel)*. 2021; 11(16): 2300. doi: <https://doi.org/10.3390/healthcare11162300>.
34. Ramraj U. Living with Diabetes: Managing Treatment and the Psycho-social Aspects of the Disease. Doctoral Dissertation, Durban University of Technology; 2023. doi: <https://doi.org/10.51415/10321/4923>.
35. Boushehri FM. Review of Motivational Interviewing And Psychological Consulting In Diabetic Patients Admitted To Hospitals. *International Journal of Hospital Research*. 2022; 11(3): 1-8. Available from: [https://ijhr.iuums.ac.ir/article\\_153824.html](https://ijhr.iuums.ac.ir/article_153824.html).
36. Turhan A, Albayrak B, Çarlioğlu A, Gündüz N, Nazlıgül HTKY, Yalçın K. Evaluation of eating disorders, kinesiophobia and dysfunctional attitudes in patients with type 2 diabetes mellitus. *Journal of Clinical Medicine of Kazakhstan*. 2022; 19(3): 28-34. doi: <https://doi.org/10.23950/jcmk/12109>.
37. Adeel A, Kee DMH, Qasim Daghriiri Y. Conflict side of creativity: Role of supervisory support and team affective tone in facilitating creative idea validation. *Front Public Health*. 2022; 10: 965278. doi: <https://doi.org/10.3389/fpubh.2022.965278>.
38. Ruggiero L, Spirito A, Bond A, Coustan D, McGarvey S. Impact of Social Support and Stress on Compliance in Women With Gestational Diabetes. *Diabetes Care*. 1990; 13(4): 441-43. doi: <https://doi.org/10.2337/diacare.13.4.441>.
39. Anderson RM, Donnelly MB, Dedrick RF. Measuring the attitudes of patients towards diabetes and its treatment. *Patient Educ Couns*. 1990; 16(3): 231-45. doi: [https://doi.org/10.1016/0738-3991\(90\)90072-s](https://doi.org/10.1016/0738-3991(90)90072-s).
40. La Greca AM, Bearman KJ. The diabetes social support questionnaire-family version: evaluating adolescents' diabetes-specific support from family members. *J Pediatr Psychol*. 2002; 27(8): 665-76. doi: <https://doi.org/10.1093/jpepsy/27.8.665>.
41. Anggiani S. Effect of transformational leadership on employee creativity: perceived organizational support mediator (study empiric at five-star hotels in Jakarta). *PEOPLE: International Journal of Social Sciences*. 2019; 4(3): 1862-75. doi: <https://doi.org/10.20319/pijss.2019.43.18621875>.
42. Babb AQ. Levels of Care: An Exploration of Perceived Attitudes in the Diagnosis and Treatment of Diabetes and Hypertension and Its Impact on Black Men and Women. Doctoral Dissertation, Adler University; 2021. Available from: <https://www.proquest.com/openview/6234438b6692705dc72eb2b44682207>.

## Appendix 1

### Diabetes Compliance

#### Diet Items

1. I stay on my diet when I eat out.
2. I eat within 0.5 h of the usual time for each meal.
3. I eat foods that I should avoid on my diet.
4. I eat foods from each of the food exchanges every day.
5. I eat more on those days when I get more exercise than usual.

#### Insulin Items

1. I make adjustments in my insulin dose (or call in to the hospital) based on my self-monitored blood glucose results.
2. I rotate my insulin injection sites every day.
3. I take my insulin dose even when I get sick with a fever or when I am nauseated and/or vomiting.
4. I receive my insulin injections within 0.5 h of the usual time every day.

#### Management Attitude Towards Patient Autonomy

In general, I believe that:

1. The important decisions regarding daily diabetes care should be made by the person with diabetes
2. People with diabetes should choose their own goals for diabetes treatment
3. People with diabetes should learn a lot about the disease so they can be in charge of their own diabetes care
4. People with diabetes should be taught how to choose their own self-care methods (e.g., type of diet, type of blood sugar monitoring, number of daily insulin injections)
5. People with diabetes have the right to decide how hard they will work to control their blood sugar

#### Emotional Support

1. Are available to listen to concerns or worries about your diabetes care.
2. Give you things to read on diabetes care.
3. Tell you how well you've been doing with your diabetes care.
4. Encourage you to do a good job of taking care of your diabetes.
5. Understand when you sometimes make mistakes in taking care of your diabetes.

#### Employee Creativity

1. I support other people successful in work place
2. I decide my own ability in finishing my job
3. I feel very happy with my own new ideas
4. I have with some ideas to solve a problem
5. I have an idea and a solution that other people don't think about
6. I have my own autonomy to do my job
7. I believe that my role gives a significant achievement for my department

8. If I achieve a good performance, I will get rewarded higher
9. Good performance in my job will give me high reward
10. If I work hard, I will get better reward
11. Big effort in my job will give me higher reward
12. If I work creatively, I will get extra financial reward, incentives or bonuses
13. If I do my job creatively, it will influence my job promotion
14. If I give suggestion with the new idea for my job, it will influence positively to my performance appraisal.
15. Manager knows me better because of my suggestion with new ideas for the new duty