ORIGINAL RESEARCH

Influences of Acknowledge Introduce Duration Explanation Thank You and Pendleton-based Consultation Mode on Outpatient Visit

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ABSTRACT

Objective • There are few studies on the application effects of acknowledge introduce duration explanation thank you (AIDET) and Pendleton-based consultation modes on outpatient visits. Outpatients were included as the subjects to investigate the application effects of AIDET interaction mode and Pendleton general consultation mode in outpatients' visits, which provided the referable basis for outpatient management.

Methods • In this research, a retrospective analysis was performed for 303 outpatients treated in the general outpatient clinic of our hospital between March 2021 and March 2022. According to different treatment methods, they were enrolled into groups A (101 cases), P (101 cases), and C (101 cases). The patients in Group A were treated with AIDET interaction mode, those in Group P were treated with Pendleton general consultation mode, and those in Group C were treated with traditional doctor-patient interaction mode. Self-rating anxiety scale (SAS) and self-rating depression scale (SDS) were utilized to evaluate anxiety and depression among patients before and after treatment. What's more, the interaction effects on patients in the three groups after consultation were compared, and the cooperation degree of patients in the three groups during consultation and treatment were summarized. What's more, a simplified coping style questionnaire (SCSQ) was employed to evaluate patients' responses to doctors' advice, and the satisfaction among patients in different groups was statistically analyzed.

Results • SAS and SDS scores for groups A and P after consultation were apparently inferior to those before consultation ($P < .01$) and those for group C ($P < .01$). The proportion of patients whose disease was completely summarized and accurately analyzed in Group A was notably superior to that in Group C ($P < .001$), and the proportion in Group P was superior to that in Group C ($P < .05$). The degree of cooperation in group A and P were higher than that in group C ($P < .05$). Positive and passive response scores for groups A and P differed from those for group C ($P < .05$). The satisfaction with outpatient visits in groups A and P were superior to those in group C ($P < .05$).

Conclusion • AIDET and Pendleton consultation modes could relieve anxiety about medical visits and improve patients' cooperation and satisfaction with treatment. In particular, AIDET was more effective and had potential application values in outpatient treatment. (Altern Ther Health Med. [E-pub ahead of print.])

INTRODUCTION

The outpatient clinic is the department where hospitals have the earliest contact with patients, and it is an important place for disease consultation in hospitals and is of great significance for the hospital's reputation and the quality of diagnosis and treatment.1 In recent years, interaction and consultation mode have played a more and more significant role in medical visits and nursing with the rapid change of medical modes. According to related statistical results, high professional techniques account for only 25% of effective communication with patients, while good communication ability accounts for as high as 75%,2 which suggests that medical and nursing staff should not only master highly professional techniques but also have high sentimental values and emotional quotient. As an intermediary interaction mode of subjects' behaviors, the mode is characterized by universality, simplicity, repeatability, stability, and operability.3,4 It plays a vital role in interaction mode. At present, common interaction modes include situation background assessment recommendation (SBAR), connect,
introduce communication, ask response exit (CHEF), acknowledge, introduce duration explanation, and thank you (AIDET). SBAR is mainly employed for the communication about disease, while CHEF is performed for face-to-face interaction between doctors and patients. AIDET can relieve patients' psychological stress and reduce stress levels to enable them to communicate with medical and nursing staff in a relaxed and pleasant state. What's more, AIDET both improves patients' satisfaction and compliance with anesthesia. Consequently, they are cared for and respected by medical and nursing staff. AIDET combines verbal and non-verbal communication to alleviate patients' anxiety and depression. Consequently, it is widely applied in medical staff-patient communication.

Consultation is the main method for the collection of patient's medical history and symptoms through comprehensive and systematic inquiry by doctors. During the consultation, most doctors emphasize “inquiry” than “diagnosis”, which reduces patients' satisfaction and experience. Consequently, the recent change in medical modes can’t be achieved. Pendleton general consultation mode is the first patient-centered consultation mode based on the Helman model. It enhances clinical management ability and interpersonal communication ability. In addition, it achieves a consensus between doctors and patients, invites patients to get involved in management, and encourages them to undertake their responsibilities by asking about specific reasons for medical visits and activating problems or risk factors. As a result, a good doctor-patient relationship is built up and maintained.

In China, medical communication and consultation modes develop slowly. In 2016, the National Health and Family Planning Commission focused on improving patients' experience in hospital visits in the campaign to improve medical services and suggested that medical and nursing staff should improve their consultation and communication abilities. Nonetheless, there are few domestic studies on the application of Pendleton general consultation mode to the consultation with patients. Hence, outpatients were included as the subjects to investigate the application effects of AIDET interaction mode and Pendleton general consultation mode in outpatients’ visits, which provided the referable basis for outpatient management.

**MATERIALS AND METHODS**

**General data**

This research was a retrospective cross-sectional study. 303 patients treated in the general outpatient clinic of our hospital between March 2021 and March 2022 were included as the subjects and enrolled into groups A (101 cases), P (101 cases), and C (101 cases) according to different treatment methods. The patients in A were treated with AIDET interaction mode, those in group P were treated with Pendleton general consultation mode, and those in group C were treated with traditional doctor-patient interaction mode. In group A, there were 55 males and 46 females aged between 21 and 45, averaging 48.76 ± 9.97. In group P, there were 56 males and 45 females aged between 19 and 50, averaging 49.24 ± 10.09. In group C, there were 16 males and 15 females aged between 20 and 47 with an average of 48.34 ± 8.98.

The inclusion criteria included: (1) Patients aged over 18; (2) General patients undergoing outpatient treatment.

The exclusion criteria included: (1) Patients with consciousness disorder; (2) Patients with mental diseases or a history of mental diseases; (3) Patients with hearing impairment; (4) Patients with literacy and language dysfunction. No statistical significance was detected in age, gender, and other baseline data among patients in the two groups (P > .05).

**Consultation methods**

During the consultation with patients in group A, outpatient treatment should be performed according to 5 steps of AIDET (acknowledge, introduce, duration, explanation, and thank you). Based on doctors' work experience and types of diseases, AIDET interaction mode was developed. The specific procedures of AIDET were as follows.

**Acknowledge.** Doctors actively and kindly asked about patients’ basic condition and disease information with a smile.

**Introduce.** Doctors introduced their names, titles, departments, professional skills, and expertise to patients and their family members in plain language to enhance patients' trust.

**Duration.** Except for kind verbal communication, doctors could communicate with patients through facial expressions and other body language. During the examination, they should discuss the topic that patients were interested in to alleviate their anxiety.

**Explanation.** After the consultation and examination, doctors briefly introduced disease data to patients and informed them of the technical level and professional quality of modern patient treatment teams to enable patients to actively; cooperate with the treatment.

**Thank you.** At the end of the consultation, the medical and nursing staff showed their gratitude for the patients’ cooperation and contribution during the treatment. Moreover, they should ask if patients had other questions and requirements to build trust.

The patients in group P were treated with Pendleton general consultation mode. The specific contents are listed below. (A) Medical and nursing staff asked about disease, medical history, and age in detail and recorded related data. They identified the reasons that patients made hospital visits and discussed with patients their viewpoints and expectations about diseases. In addition, they determined whether patients suffered from anxiety and other negative emotions. (B) Medical and nursing staff developed a reasonable and effective treatment method for disease based on the consensus after communication with them. (C) Medical and nursing staff encouraged patients to actively cooperate with diagnosis, treatment, and follow-up and built good relationships with...
patients. The patients in group C were treated with traditional doctor-patient communication mode.

**Observation indicators**

Before and after treatment, the self-rating anxiety scale (SAS)\(^4\) and self-rating depression scale (SDS)\(^5\) were utilized to evaluate anxiety and depression among patients. SAS scores under 50, between 50 and 59, between 60 and 69, and above 70 represented no anxiety, mild anxiety, moderate anxiety, and severe anxiety, respectively. SDS scores under 53, those between 53 and 62, those between 63 and 72, and those above 73 suggested no depression, mild depression, moderate depression, and severe depression, respectively.

The communication effects on patients in the three groups after the consultation were compared in terms of statistical integrity and accuracy of disease analysis. What’s more, the cooperation degree of patients in the three groups during the consultation and treatment was statistically analyzed and divided into high, intermediate, and low cooperation according to patients’ performance. High, intermediate, and low cooperation represented active cooperation with related treatment, partial or passive cooperation, and the refusal to cooperate with effective treatment.

Simplified coping style questionnaire (SCSQ)\(^6\) was utilized to assess the copying styles of patients in the three groups. SCSQ included 2 dimensions (12 positive items and 8 negative items). Each item was scored in the range of 0 to 3 points. According to the final SCSQ scores, patients’ copying styles were assessed. A higher score suggested that the patient tended to adopt this coping style.

At the end of the consultation or during the follow-up, satisfaction questionnaires were distributed to patients. The questionnaire mainly included whether medical and nursing staff were enthusiastic during the consultation, their attitude, and whether disease information was explained clearly. The full score was 100 points. The score under 60, between 61 and 89, and that equal to or over 90 represented unsatisfied, basically satisfied, and satisfied, respectively. In addition, the satisfaction with consultation of the two groups was compared.

**Statistical analysis**

The experimental data were processed using Statistic Package for Social Science (SPSS) 20.0 (IBM, Armonk, NY, USA). Measurement data were denoted by mean ± standard deviation (\(\bar{x} \pm s\)) and statistically analyzed using \(t\) test. Enumeration data were represented by percentage (%) and statistically analyzed using \(\chi^2\) test. \(P < .05\) suggested that the difference demonstrated statistical significance.

**RESULTS**

**Comparison of SAS scores for patients in the three groups before and after medical visit**

SAS scores for patients in groups A, P, and C were statistically analyzed (Figure 1). Before the medical visit, SAS scores for groups A, P, and C amounted to 57.25 ± 3.37, 58.03 ± 5.12, and 57.84 ± 3.46, respectively. No statistical difference was detected between SAS scores for groups P and C before consultation (\(P > .05\)). After the consultation, SAS scores for groups A, P, and C amounted to 35.51 ± 3.63, 40.19 ± 3.53, and 54.21 ± 3.35, respectively. SAS scores for the three groups all declined after the consultation. SAS score for group A was notably inferior to that before the consultation (\(P < .001\)), and a remarkable difference was detected in SAS scores for group P before and after the consultation (\(P < .01\)), while it was not found in those for group C (\(P > .05\)). After the consultation, SAS score for group A was inferior to that for group C (\(P < .001\)), which was superior to that for group P (\(P < .01\)).
Comparison of SDS scores for patients in the three groups before and after medical visit

SDS scores for patients in groups A, P, and C were statistically analyzed (Figure 2). Before medical visits, SDS scores for groups A, P, and C amounted to 58.74±4.46, 57.98±4.37, and 57.65±4.81, respectively. No statistical difference was detected between SDS scores for groups P and C before consultation (P > .05). After the consultation, SDS scores for groups A, P, and C amounted to 33.36±4.28, 41.25±5.41, and 54.88±5.34, respectively. SDS scores for the three groups all declined after the consultation. SDS score for group A was notably inferior to that before the consultation (P < .001), and a remarkable difference was detected in SDS scores for group P before and after the consultation (P < .01), while was not found in those for group C (P > .05). After the consultation, the SDS score for group A was inferior to that for group C (P < .001), which was superior to that for group P (P < .01).

Comparison of communication effects on patients in the three groups after medical visit

The statistical integrity of disease among patients in the three groups after medical visit was presented in Figure 3. The proportions of patients with complete statistical data in groups A, P, and C were 98.02% (99 cases), 84.46% (85 cases), and 60.40% (61 cases), respectively. The proportion of group A was remarkably superior to that of group C (P < .001), which was inferior to that of group P (P < .05). The difference between groups A and P proportions was statistically significant (P < .05).

The accuracy of disease analysis among patients in the three groups after medical visit was displayed in Figure 4. The proportions of patients whose disease was accurately analyzed in groups A, P, and C amounted to 99.01% (100 cases), 87.13% (88 cases), and 71.29% (72 cases). The proportion in group A was superior to that in two other groups (P < .05, P < .05), and the proportion in group P was superior to that in group C (P < .05).

Comparison of cooperation degree among patients in three groups during medical visits and treatment

Cooperation degree among patients in three groups during medical visits and treatment was statistically analyzed (Figure 5). The proportions of patients with high, intermediate, and low cooperation in groups A, P, and C amounted to 74.26% (75 cases) vs. 57.43% (58 cases) vs. 37.62% (38 cases), 22.77% (23 cases) vs. 37.62% (38 cases) vs. 43.56% (44 cases), and 2.97% (3 cases) vs. 4.95% (5 cases) vs. 18.81% (9 cases), respectively. The proportion of patients with high cooperation in group A was superior to that in groups C and P (P < .01, P < .05), and the proportion of those with high cooperation in group P was superior to that in group C (P < .05). The proportion of patients with intermediate cooperation in group A was inferior to that in two other groups (P < .01), and the proportion of those with low cooperation in group C was superior to that in groups A and
The cooperation degree of groups A, P, and C were 97.03%, 95.05%, and 81.19% ($P < .05$).

**Comparison of responses to doctors' advice among patients in three groups**

The statistical results of positive response scores in three groups are displayed in Figure 6. Positive response scores for groups A, P, and C amounted to $23.33 \pm 2.19$, $20.15 \pm 3.01$, and $17.64 \pm 2.46$, respectively ($P < .05$).

The statistical results of negative response scores for patients in three groups are illustrated in Figure 7. Negative response scores for groups A, P, and C amounted to $15.04 \pm 1.06$, $15.72 \pm 2.11$, and $19.19 \pm 1.79$, respectively ($P < .05$).

**Analysis of treatment satisfaction among patients in three groups**

The statistical results of treatment satisfaction among patients in the three groups are presented in Figure 8. Treatment satisfaction was $68.77\%$ (68 cases), $51.49\%$ (52 cases), and $39.60\%$ (40 cases) in groups A, P, and C, respectively. In the above three groups, basic satisfaction amounted to $30.69\%$ (31 cases), $41.58\%$ (42 cases), and $48.51\%$ (49 cases), and dissatisfaction was $1.98\%$ (2 cases), $6.93\%$ (7 cases), and $11.88\%$ (12 cases). Satisfaction and basic satisfaction in groups A and P were superior to those in group C ($P < .01$, $P < .05$), while dissatisfaction was inferior to that in group C ($P < .05$, $P < .05$). Satisfaction and basic satisfaction in group A were superior to those in group P ($P < .05$). In groups A, P, and C, satisfaction reached $98.02\%$, $93.07\%$, and $88.12\%$, respectively ($P < .05$). No statistical difference was detected in treatment satisfaction between groups A and P ($P > .05$).

**DISCUSSION**

With the rapid development of medical technology in recent years, outpatient nursing and consultation modes both need to be improved. According to the existing research findings, outpatient consultation mode is the major problem and situation in general hospital management. At present, AIDET and Pendleton are widely applied in medical institutions and effective in doctor-patient communication. Nevertheless, there are no reports on the application effects of the above two consultation modes on medical visits among outpatients. Outpatients were included as the subjects in this research, and their application effects were analyzed. It was demonstrated that SAS and SDS scores for group A notably declined after the consultation ($P < .001$), and remarkable differences were detected in SAS and SDS scores for group P before and after consultation ($P < .01$). After the consultation, SAS and SDS scores for group A were inferior to those for group C ($P < .001$), which were superior to those for group P ($P < .01$). The above research results indicated that both AIDET and Pendleton could alleviate anxiety and depression during medical visits. The reason might be the above two modes were patient-centered and based on effective communication with patients. AIDET reduced SAS and SDS scores more.
dramatically than Pendleton, suggesting that the former interaction mode alleviated depression and anxiety more effectively. After normative training, medical and nursing staff performed AIDET during consultation based on their high professional level. During the communication with patients, their psychological stress and stress reaction were relieved. Furthermore, the medical and nursing staff won patients’ trust by being amicable. Hence, AIDET was very effective in alleviating anxiety. In addition, it was found that the above two consultation modes remarkably enhanced the integrity and accuracy of disease analysis, especially AIDET. Although disease-related data were recorded in detail, Pendleton showed lower integrity and accuracy due to medical and nursing staff’s poor attitude. The above two modes were both conducive to improving patients’ cooperation, positive response scores, and treatment satisfaction. Zheng et al. showed that AIDET could timely understand patients’ mental state and problems and win their trust to relieve depression and enhance treatment satisfaction and related. Statistical outcomes demonstrated that treatment satisfaction rose from 40% to 90% after AIDET was implemented in the hospital. Obviously, it could dramatically improve patient satisfaction. AIDET played a vital role in treatment cooperation and initiative by alleviating patients’ negative emotions. During medical visits, patients were informed of the medical team’s professional quality and technical level to enhance their initiative and cooperation in treatment. Besides, the above behavior reflected medical and nursing staff’s affinity, which promoted trust between doctors and patients and improved patients’ responses to doctors’ advice. Consequently, patients positively cooperated with doctors for corresponding treatment. To sum up, AIDET and Pendleton exerted positive effects on alleviating patients’ anxiety about medical visits, improving integrity and accuracy of disease analysis, and increasing treatment cooperation and satisfaction, especially AIDET. The research findings demonstrated that the above two consultation modes could be applied in outpatient consultation management. AIDET was relatively superior to Pendleton.

CONCLUSION

To discuss the application effects of AIDET and Pendleton on outpatient consultation, outpatients were included as the subjects, and their anxiety and depression about medical visits, responses to doctors’ advice, and treatment cooperation and satisfaction were analyzed. It was revealed that the above two consultation modes could both relieve anxiety and improve treatment cooperation and satisfaction. In contrast, AIDET was more effective in alleviating depression and anxiety, increasing the integrity and accuracy of disease analysis, and improving patients’ responses to doctors’ advice, which indicated that the two modes played a positive role in outpatient visits, especially AIDET. Hence, AIDET possessed some application values in outpatient visits. However, there are still some limitations in this research. This research was a retrospective study; some indicators were incomplete, and types of diseases were not analyzed. In subsequent research, the subjects should be re-included for the analysis of the application values of AIDET and Pendleton in different outpatient visits, which provided a clinical basis for further application of the two modes in outpatient visits. To conclude, this research was conducted to provide some references for formulating an outpatient management plan and selecting outpatient consultation modes.

CONFLICT OF INTEREST

The authors have no potential conflicts of interest to report relevant to this article.

AUTHOR CONTRIBUTIONS

YF and JX designed the study and performed the experiments, HL collected the data, XZ analyzed the data, YF and JX prepared the manuscript. All authors read and approved the final manuscript.

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