

1
2 **The Signs and Symptoms Comparison of Gastrointestinal Diseases between Classic**
3 **Medicine and Iranian Traditional Medicine**
4 **A Hybrid Qualitative Study**
5
6
7
8

9 **ABSTRACT**

10
11 **Background:**

12 Iranian traditional medicine is the oldest form of medical structure and is, in fact, an inseparable part of
13 the life of various Iranian societies. On the other hand, gastrointestinal and liver diseases are one of the
14 most common causes of morbidity in the world, including in Iran. Such that 10% of diseases are allocated
15 to them and their diseases are spreading increasingly.

16 **Objective:**

17 Considering the mentioned issues and the high prevalence of gastrointestinal symptoms, the aim of this
18 study is to investigate the compliance of the symptoms of gastrointestinal diseases in classical medicine
19 with Iranian traditional medicine from the viewpoint of Iranian traditional medicine experts.

20 **Methods:**

21 This is a hybrid qualitative study which was conducted in three phases, including: 1- theoretical, 2- field
22 and 3- combinational phases. In the theoretical phase, two types of medicine text books i.e Iranian
23 traditional and classic medicine text books. In the field stage, 13 academic Iranian traditional medicine
24 experts with at least 5 years of work experiences in Iranian traditional medicine, were interviewed. Then,
25 in combinational phase, the results of two early phases have been summarized using descriptive statistics.

26 **Results:**

27 The results of the study show that 12 of the 40 symptoms in this study had a compliance of 100%. These
28 12 symptoms are Increase of Salivation, Pica, Borborygmi, Hiccups, Abdominal distention, Melena, Anal
29 Fissure, Anal Stenosis, Cryptitis, Anal pruritus, Halitosis, Rectal pain; Also, the results showed that 8 of
30 the 40 symptoms in this study had over 70% compliance. These 10 symptoms are as Belching,
31 Regurgitation, Hematemesis, Flatulence, Increased Bowel sound, Abdominal pain, Diarrhea, Jaundice and
32 Anal prolapse. Also, the percentage of compliance of the other symptoms was less than 70%.

33 **Conclusion:**

34 Considering the results of this study and the capabilities of Iranian medicine in relation to symptoms of
35 gastrointestinal diseases with classical medicine, it is possible to design appropriate patterns to expose it.
36 Also, an integrated approach to clinical research is recommended to improve the efficacy and safety of
37 gastrointestinal treatments.

38 **Keywords:** Sign, Symptom, Gastrointestinal, Traditional Persian Medicine, Classic Medicine.
39
40
41
42
43
44
45

46 **Introduction**

47 Traditional and complementary medicine is a collection of knowledge and skills and activities that are
48 established based on theoretical and culturally different experiences which is used in the prevention,
49 diagnosis, and treatment of the physical and psychological conditions of patients. In recent years,
50 researchers and physicians all around the world, have paid increased attention to complementary
51 medicine. In such a way that, annually the use of complementary medicine in addition to commonly used
52 medicine is used as a solution (1, 2). No complete success in common medicine in the definite treatment
53 of many diseases on the one hand, and the popular acceptance of complementary medicine for the non-
54 use of chemical compounds and the use of herbal and natural medicines on the other hand are among the
55 main factors of this attention (3). The great attention paid by international organizations such as the WHO
56 to the development and use of traditional medicine in the health services and treatment system has led to a
57 greater appreciation of the valuable heritage of traditional medicine and taking action in relation to
58 traditional treatments used in the different disease (4). Iranian traditional medicine is the oldest form of
59 medical structure and is, in fact, an inseparable part of the life of various Iranian societies. Traditional
60 medicine in Iran, with several hundred years of existence, has a high capacity for the prevention and
61 treatment of diseases. which this point solves many health and medical problems (5). In traditional
62 medicine text books, symptoms and signs have sometimes been raised as illnesses and have been
63 discussed independently in the titles of the book. In modern medicine texts symptom is defined as “Any
64 mental evidence of a disease or condition of a patient that is felt by him”. It also suggests a change in the
65 patient's state of health, which indicates a physical or mental state, for example, pain and itching. Sign is
66 an objective finding received by the examiner, for example, a rash of skin (6). The gastrointestinal and
67 liver diseases are one of the most common causes of morbidity in the world, including in Iran. So that
68 they cause 10% of the deaths. And the incidence of this disease is increasing (7-9). The prevalence of
69 gastrointestinal symptoms is high. Among the symptoms of the gastrointestinal tract, heartburn,
70 abdominal pain, diarrhea, constipation, nausea, vomiting, and anorectal problems are among the most
71 common symptoms (10). In a study of Reviews of System, the prevalence of symptoms is as abdominal
72 pain 8-54%, heartburn, 48-10%, regurgitation, 45-9%, and heartburn together with regurgitation were
73 reported about 59-29% (11). Considering the mentioned issues and the high prevalence of gastrointestinal
74 symptoms the aim of this study was to investigate the compliance of the symptoms of gastrointestinal
75 diseases in classical medicine with Iranian traditional medicine from the viewpoint of Iranian traditional
76 medicine experts.

77

78

79 **Material and Methods**

80 This is a hybrid qualitative study carried out in three phases, including: 1- theoretical, 2- field and,
81 3- combinational phases.

82 **Phase I: Theoretical study**

83 The theoretical phase was conducted in two steps. In step 1, the description, etiology, physiology
84 gastrointestinal sign and symptom in Iranian traditional medicine also the importance of
85 matching in viewpoints of Iranian traditional medicine resources were studied. In step 2, we
86 reviewed the sign and symptom using recent articles and projects in addition traditional
87 resources. We searched these references via several reliable sources such as PubMed, Google
88 scholar, Scopus, Irandoc, Mag Iran, SID, Iran MEDEX, Iranian traditional book like Qanoon-fet-
89 tteb, Tebbe-Aakbari, kamel-os-ssanae, Zakhire, Sharh-ol-asbab, using keywords including
90 "sign", "symptom", "gastrointestinal", "Iranian traditional medicine", "comparison ", " classic
91 medicine. The flowchart of the study can be seen in diagram 1.

92 **Phase II: Data collection**

93 In the phase, we provided a semi-structural interview with 20 Iranian traditional experts, of
94 whom 13 of them completed the interview. The experts had at least 5 years history of work
95 experiences in Persian medicine at Tehran province. This interview was performed within
96 October and November 2017. Each interview was lasted for 30 to 50 minutes in which answers
97 were saturated at 7th interview. Findings of the interview and analysis which are summarized in
98 Table 1.

99 The interview contained the following subjects:

- 100 1) The definition of gastrointestinal sign and symptom base on Iranian traditional and
101 classic medicine.
 - 102 2) Request to match defined gastrointestinal sign and symptom based on their experience.
 - 103 3) Collecting the data and primary analysis
 - 104 4) Feedback of primary result presented to the expert and some problems or corrective
105 comments have been made
 - 106 5) Final result prepared and tabled in table1.
- 107
108
109

110 **Results**

111 The comparison between Iranian traditional and classic medicine sign base on Iranian traditional
 112 experts presented in Table1, the results of this study show that 12 of the 40 symptoms in this study had
 113 a compliance of 100%. These 12 symptoms are Increase of Salivation, Pica, Borborygmi, Hiccups,
 114 Abdominal distention, Melena, Anal Fissure, Anal Stenosis, Cryptitis, Anal pruritus, Halitosis, Rectal
 115 pain; Also, the results showed that 8 of the 40 symptoms in this study had over 70% compliance. These
 116 10 symptoms are as Belching, Regurgitation, Hematemesis, Flatulence, Increased Bowel sound,
 117 Abdominal pain, Diarrhea, Jaundice and Anal prolapse. Also, the percentage of compliance of the other
 118 symptoms was less than 70%.

119 **Table1:** The comparison between Iranian traditional and classic medicine sign base on
 120 Iranian traditional experts

Other Iranian Traditional sign		Classic Medicine sign	Major Iranian Traditional sign
		Salivation (increase)	ehraqriq (100%)
		Halitosis	bakhharol- famm (100%)
intibāgkxmeri (10%)	khonāq (30%)	Odynophagia	'osrol- bal ' (60%)
khonāq (11%)	'osrol- bal ' (33%)	Globus hystericus	intibāgkxmeri (56%)
other (17%)	khonāq (8%)	Dysphagia	'osrol- bal ' (75%)
thiql (9%)	tokhamah (8%)	Dyspepsia	sū ' ol-ħadm (48%)
tokhamah (11%)	da' fol-ħadm (16%)	Indigestion	thiql (45%)
waji ' ol- mi 'dah (10%)	sū ' ol-ħadm (28%)	Belching	joshā (80%)
jū ' ol- kalbī (8%)	nafkh (10%)	Anorexia	Faqdshahwaho- (63%)
	jū ' ol-baqarī (29%)	Pica	waħam (100%)
other (11%)	jū ' (29%)	Polyphagia	jū ' ol- kalbī (57%)
other (24%)	jū ' ol-baqarī (18%)	Bulimia	jū ' ol- kalbī (58%)
Ĥorqatol-mi 'dah (10%)	joshā (18%)	Regurgitaition	ħomūdah (72%)
	tahawwo ' (47%)	Nausea	ghathayān (53%)
tahawwo ' (11%)	inqilāb mi 'dah (22%)	Vomiting	qay' (67%)
	other (15%)	Hematemesis	qay ' od-dam (85%)
	other (14%)	Flatulence	nafkh (86%)
	other (11%)	Bowel sound (increase)	qarāqir (89%)
		Borborygmi	qarāqir (100%)
		Hiccups	fowāq (100%)
other (11%)	waja ' ol-fo ' ād (24%)	Heart burning	Ĥorqatol-mi 'dah (65%)
	tashannoj mi 'dah (33%)	Abdominal rigidity	jos' at ol- mi 'dah (67%)
	other (23%)	Abdominal pain	waji ' ol- mi 'dah (77%)
		Abdominal distention	nafkh (100%)
	birāzyabas (45%)	Constipation	ħaşr (55%)
	other (29%)	Diarrhea	ishāl (71%)
zahīr (7%), khilfah (6%), zarab (6%)	haydah (10%)	Dysentery	ishālol-dam (57%)
	other (37%)	Dumping syndrome	zarab (38%)

other (37%)	zahīr (25%)	Bloody stool	ishālol-dam (38%)
other (16%)	qīyāmol-kabidī (17%)	Hematochezia	ishālol-dam (67%)
		Melena	ishālol-dam (100%)
	other (50%)	Stool,clay_colored	Zalaqol-‘am‘ā’ (50%)
	other (8%)	Jaundice	yaraqān (92%)
		Anal Fissure	shiqāqmaq‘ad (100%)
		Anal Stenosis	wammaq‘ad (100%)
		Cryptitis	wammaq‘ad (100%)
	other (33%)	Fecal incontinence	istirkhā‘sharaj (67%)
	other (14%)	Anal prolapse	khōrūjmaq‘ad (86%)
		Anal pruritus	hikkahmaq‘ad (100%)
		Rectal pain	wammaq‘ad (100%)

121

122 Discussion

123 Considering the role of complementary medicine and traditional medicine in the treatment of known
124 diseases, the aim of this study was to investigate the adaptation of the symptoms of gastrointestinal
125 diseases of classical medicine to traditional medicine of Iran from the viewpoint of Iranian traditional
126 medicine experts. The results of this study showed that from 40 identified symptoms in the library study
127 phase the following results were shown: Compliance of 12 symptoms was 100%, compliance of 8
128 symptoms was more than 70%, and the compliance of 20 other symptoms was less than 70%. Of course,
129 the first point in examining this compliance is that the low or high compliance of a symptom does not
130 necessarily mean that it is of less or more importance, and in some cases, the low compliance indicates
131 more precision of traditional medicine in comparison with the recognition of the symptoms of the disease
132 in the classical medicine. One of the reasons for low compliance in some common symptoms, such as
133 nausea and vomiting is due to the continuity of the definitions and the causes of their causes in traditional
134 medicine. The term nausea and vomiting is used in classical medicine to express the symptoms of nausea
135 and vomiting. The same symptoms in traditional medicine are known as “tahawwo ghathayānqay” and
136 “taqallobonnafs” (12) “qay”, is called gastric motility, which results in the repulsing of the substance
137 through the mouth (13), However, this movement is existed in “tahawwo” but there is not any substance
138 repulsed. Traditional medicine, “ghathayānis” the primary cause of nausea, in which the person feels
139 uncomfortable, but the movement of the substance has not yet happened. In all the above mentioned items
140 such as “tahawwoghathayānqay” the causative agent of the disease can either be related to the stomach
141 itself or from another part of the gut.(12) If the substance is specifically related to the stomach, it is called
142 “taqallob o nnafs”(14).

143 To provide further evidence in this regard, it is possible to differentiate the definitions and causes of
144 digestive problems in the classical and traditional medicine perspective. Digestive problems are described
145 in classical medicine with the words Indigestion and Dyspepsia (15).Meanwhile, in traditional medicine,

146 this problem is expressed in terms of mild, moderate and sever digestion problem, , as well as bloating, as
147 more prominent manifestations (16-19) In Iranian traditional medicine, the problem of digestion is
148 considered as a syndrome in which the severity of the symptoms is expressed by different definitions.
149 Mild digestion problems are defined as “ḍa‘fol-ḥaḍm”, moderate digestion problems as “sū ‘ ol-ḥaḍm”
150 and sever digestionproblems as “tokhamah”(20, 21). Consequently, the lack of convergence of views of
151 traditional medicine professors can be justified (12)For example; traditional medicine experts have
152 reported dyspepsia as 48% “sū ‘ ol-ḥaḍm”, 35% ofḍa‘fol-ḥaḍmand 8% of" tokhamah and indigestion as
153 45% thiql, 28% sū ‘ ol-ḥaḍm, 16% ḍa‘fol-ḥaḍm, and 11% tokhamah.

154 Another important point to justify the mismatch of traditional medicine experts' opinions is that some of
155 the symptoms cause some other symptoms. Constipation, for example, has been mentioned in traditional
156 medicine with the term "Hasr", that means constraint. the equivalent of constipation and "birāzyabas
157 which means (Dried fecal materials) is its cause (22-25) in this study. constipation is about 55% in
158 compliance with Hasr and 45% with birāzyabas, Also, some of the symptoms or results of a patient in
159 traditional medicine are equated with a sign or symptom in classical medicine. For example, swelling is
160 due to Cryptitis, Anal Stenosis and Rectal pain (26).

161 **Conclusion**

162 Regarding the results of this study and the Iranian medicine's competence is in terms of the symptoms of
163 gastrointestinal diseases with classical medicine, it is possible to design appropriate patterns for dealing
164 with it. Also, an integrated approach to clinical research is recommended to improve the efficacy and
165 safety of gastrointestinal treatments.

166 **References**

- 167 1. Hall HG, Griffiths DL, McKenna LG. The use of complementary and alternative medicine by
168 pregnant women: a literature review. *Midwifery*. 2011;27(6):817-24.
- 169 2. Tiran D. The use of herbs by pregnant and childbearing women: a risk–benefit assessment.
170 *Complementary Therapies in Nursing and Midwifery*. 2003;9(4):176-81.
- 171 3. Van der Watt G, Laugharne J, Janca A. Complementary and alternative medicine in the treatment
172 of anxiety and depression. *Current opinion in psychiatry*. 2008;21(1):37-42.
- 173 4. Adams J, Andrews G, Barnes J, Broom A, Magin P. Traditional, complementary and integrative
174 medicine: an international reader. . Macmillan International Higher Education, 2012. ed: Macmillan
175 International Higher Education; 2012.
- 176 5. Amri E, Kisangau DP. Ethnomedicinal study of plants used in villages around Kimboza forest
177 reserve in Morogoro, Tanzania. *Journal of ethnobiology and ethnomedicine*. 2012;8(1):1.
- 178 6. Glanze WD, Anderson K, Anderson LE. *Mosby's medical, nursing, and allied health dictionary*:
179 Mosby; 1998.
- 180 7. Massarrat M-S, Tahaghoghi-Mehrizi. S. Iranian national health survey: a brief report. *Arch*
181 *Iranian Med*. 2002;5(2):73-9.
- 182 8. Alireza S, Mehdi N, Ali M, Alireza M, Reza M, Parkin D. Cancer occurrence in Iran in 2002, an
183 international perspective. *Asian Pacific journal of cancer prevention*. 2005;6(3):359.
- 184 9. Mahdavinia M, Bishehsari F, Ansari R, Norouzbeigi N, Khaleghinejad A, Hormazdi M, et al.
185 Family history of colorectal cancer in Iran. *BMC cancer*. 2005;5(1):112.

- 186 10. Ganji A, Safavi M, Nourai S, Nasser-Moghadam S, Merat S, Vahedi H, et al. Digestive and
187 liver diseases statistics in several referral centers in Tehran 2000-2004. *Govaresh*. 2006;11(1):33-8.
- 188 11. Heading RC. Prevalence of upper gastrointestinal symptoms in the general population: a
189 systematic review. *Scandinavian journal of gastroenterology Supplement*. 1999;231:3-8.
- 190 12. Arzani M. TebbeAkbari. Qom, Iran: Institute EhyayeTebeTabiei; 2008.
- 191 13. Nazari M, Taghizadeh A, Bazzaz MM, Rakhshandeh H, Shokri S. Effect of Persian Medicine
192 Remedy on Chemotherapy Induced Nausea and Vomiting in Breast Cancer: A Double Blind,
193 Randomized, Crossover Clinical Trial. *Electronic physician*. 2017;9(1):3535-43.
- 194 14. Ibn e SinaAAH M. *Al-Qanon fi al-Tibb*. Beirut, Lebanon: Alamy Le-Al-Matboat Institute; 2005.
- 195 15. Enck P, Azpiroz F, Boeckxstaens G, Elsenbruch S, Feinle-Bisset C, Holtmann G, et al.
196 Functional dyspepsia. *Nature Reviews Disease Primers*. [Primer]. 2017;3:17081.
- 197 16. Larijani B, Esfahani MM, Moghimi M, Shams Ardakani MR, Keshavarz M, Kordafshari G, et al.
198 Prevention and Treatment of Flatulence From a Traditional Persian Medicine Perspective. *Iranian Red
199 Crescent medical journal*. 2016;18(4):e23664-e.
- 200 17. Naseri M, Babaeian M, Ghaffari F, Kamalinejad M, Feizi A, Mazaheri M, et al.
201 Bloating:Avicenna's Perspective and Modern Medicine. *Journal of evidence-based complementary &
202 alternative medicine*. 2016;21(2):154-9.
- 203 18. Pasalar M, Nimrouzi M, Choopani R, Mosaddegh M, Kamalinejad M, Mohagheghzadeh A, et al.
204 Functional dyspepsia: A new approach from traditional Persian medicine. *Avicenna journal of
205 phytomedicine*. 2016 Mar-Apr;6(2):165-74.
- 206 19. Tafti LD, Shariatpanahi SM, Damghani MM, Javadi B. Traditional Persian topical medications
207 for gastrointestinal diseases. *Iranian journal of basic medical sciences*. 2017;20(3):222-41.
- 208 20. Babaeian M, Borhani M, Hajiheidari M, Sharifi Olounabadi A, Elsagh M, Yavari M, et al.
209 Gastrointestinal System in the Viewpoint of Traditional Iranian Medicine. *Journal of Islamic and Iranian
210 Traditional Medicine* 2012;2(4):303-14.
- 211 21. Hajiheidari M, Babaeian M, Mazaheri M, Elsagh M, Yavari M, Kamali M, et al. A review on
212 causes of gastric pain in traditional Iranian medicine. *Journal of Islamic and Iranian Traditional Medicine*.
213 2012;2(4):337-44.
- 214 22. Badiee S, Nazari SM, Anushiravani M, Hosseini SMA-R, Noras M. A Brief Review on
215 Constipation in Persian and Chinese Traditional Medicine. *Journal of Mazandaran University of Medical
216 Sciences*. 2015;25(123):222-9.
- 217 23. Fattahi MR, Alorizi SME, Nimrouzi M, Zarshenas MM, Parvizi MM. A randomized clinical trial
218 on treatment of chronic constipation by traditional persian medicine recommendations compared to
219 allopathic medicine: A pilot study. *International journal of preventive medicine*. 2017;8.
- 220 24. Iraj N, Keshteli AH, Sadeghpour S, Daneshpajouhnejad P, Fazel M, Adibi P. Constipation in
221 Iran: SEPAHAN systematic review No. 5. *International journal of preventive medicine*.
222 2012;3(Suppl1):S34.
- 223 25. Ramkumar D, Rao SS. Efficacy and safety of traditional medical therapies for chronic
224 constipation: systematic review. *The American journal of gastroenterology*. 2005;100(4):936.
- 225 26. Hashempur MH, Khademi F, Rahmanifard M, Zarshenas MM. An evidence-based study on
226 medicinal plants for hemorrhoids in Medieval Persia. *Journal of evidence-based complementary &
227 alternative medicine*. 2017;22(4):969-81.

228

229